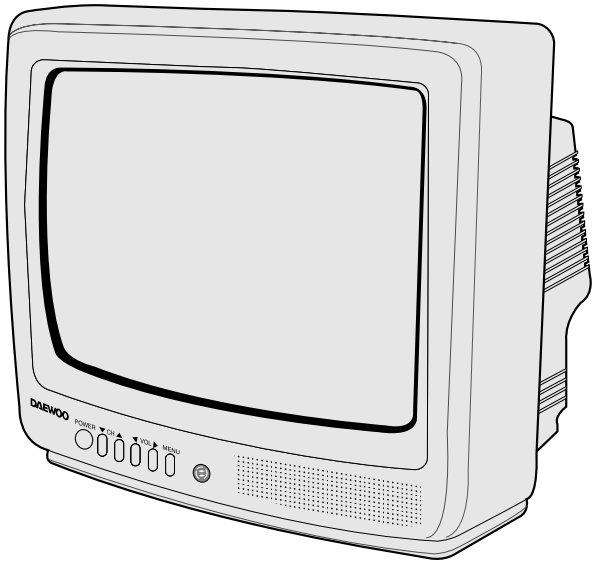
Service Manual

Color Television

CHASSIS : CN-115I

NTSC-M SYSTEM

MODEL: DTQ-14N2FC/FS/FSP
DTQ-20N2FC/FS/FSP
DTQ-14J2FC/FS/FSP
DTQ-20J2FC/FS/FSP
DTQ-14N3FC/FS/FSP
DTQ-20N3FC/FS/FSP



✔ Caution

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information,please refer to PPL(Parts Price List) in Service Information Center (http://svc.dwe.co.kr).

DAEWOO ELECTRONICS CO., LTD.

FEATURES

* FS (Frequency Synthesizer) Tuning System
* CATV Ready
* Monitor Look Design
* High Focus Minineck CRT

ELECTRICAL SPECIFICATIONS

POWER INPUT	
FC SERIES	AC 120V 60Hz
FS SERIES	AC 85V - AC 150V 60Hz
FSP SERIES	AC 220V 50Hz/60Hz
POWER RATING	
14” MODELS	60W
20” MODELS	70W
INTERMEDIATE FREQUENCIES	
PICTURE IF CARRIER FREQUENCY	45.75MHz
SOUND IF CARRIER FREQUENCY	41.25MHz
COLOR SUB CARRIER FREQUENCY	42.17MHz
AUDIO OUTPUT RATING	1.3W
SPEAKER	2W 8 ohm
ANTENNA INPUT IMPEDANCE	VHF/UHF 75 ohm UNBALANCED
TUNING RANGES	
VHF	2 THRU 13
UHF	14 THRU 69
CATV	1 THRU 125

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CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY. NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER' S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANT RESULTING PROPERTY DAMAGE OR USER INJURY.

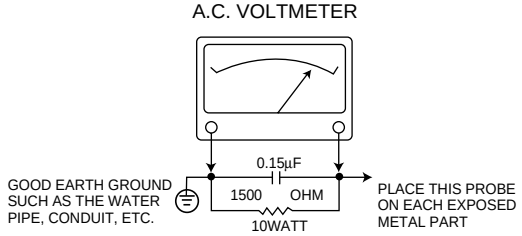
SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

SAFETY CHECKS

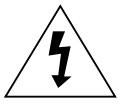
AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED, A CHECK SHOULD BE MADE OF THE FOLLOWING:

SUBJECT:FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE, THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OF SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS, FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING A.C. CORD), AND REPLACE IF NECESSARY. FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTOR, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES. DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE STE ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET. (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS, HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER : CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150V A.C. TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER POPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED .75 VOLTS R.M.S THIS CORRESPONDS TO 0.5 MILLIAMP A.C. NAY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.


A.C. VOLTMETER
0.15µF
GOOD EARTH GROUND SUCH AS THE WATER PIPE, CONDUIT, ETC.
1500 OHM
10WATT
PLACE THIS PROBE ON EACH EXPOSED METAL PART

SUBJECT : GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.

THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION ON SERVICE LITERATURE.

SUBJECT : X-RADIATION

1. BE SURE PROCEDURES AND INSTRUCTIONS TO ALL SERVICE PERSONNEL COVER THE SUBJECT OF X-RADIATION. THE ONLY POTENTIAL SOURCE OF X-RAYS IN CURRENT T.V. RECEIVERS IS THE PICTURE TUBE. HOWEVER, THIS TUBE DOES NOT EMIT X-RAYS WHEN THE HIGH VOLTAGE IS AT THE FACTORY SPECIFIED LEVEL. THE PROPER VALUE IS GIVEN IN THE APPLICABLE SCHEMATIC. OPERATION AT HIGHER VOLTAGES MAY CAUSE A FAILURE OF THE PICTURE TUBE OR HIGH VOLTAGE SUPPLY AND, UNDER CERTAIN CIRCUMSTANCES, AMY PRODUCE RADIATION IN EXCESS OF DESIRABLE LEVELS.
2. ONLY FACTORY SPECIFIED C.R.T ANODE CONNECTORS MUST BE USED. DEGAUSSING SHIELDS ALSO SERVE AS X-RAY SHIELD IN COLOR SETS. ALWAYS RE-INSTALL THEM.
3. IT IS ESSENTIAL THAT SERVICE PERSONNEL HAVE AVAILABLE AN ACCURATE AND RELIABLE HIGH VOLTAGE METER. THE CALIBRATION OF THE METER SHOULD BE CHECKED PERIODICALLY AGAINST A REFERENCE STANDARD. SUCH AS THE ONE AVAILABLE AT YOUR DISTRIBUTOR.
4. WHEN THE HIGH VOLTAGE CIRCUITRY IS OPERATING PROPERLY THERE IS NO POSSIBILITY OF AN X-RADIATION PROBLEM. EVERY TIME A COLOR CHASSIS IS SERVICED, THE BRIGHTNESS SHOULD BE RUN UP AND DOWN WHILE MONITORING THE HIGH VOLTAGE WITH A METER TO BE CERTAIN THAT THE HIGH VOLTAGE DOES NOT EXCEED THE SPECIFIED VALUE AND THAT IT IS REGULATING CORRECTLY. WE SUGGEST THAT YOU AND YOUR SERVICE ORGANIZATION REVIEW TEST PROCEDURES SO THAT VOLTAGE REGULATION IS ALWAYS CHECKED AS A STANDARD SERVICING PROCEDURE, AND THAT THE HIGH VOLTAGE READING BE RECORDED ON EACH CUSTOMER' S INVOICE.
5. WHEN TROUBLESHOOTING AND MAKING TEST MEASUREMENTS IN A PRODUCT WITH A PROBLEM OF EXCESSIVE HIGH VOLTAGE, AVOID BEING UNNECESSARILY CLOSE TO THE PICTURE TUBE AND THE HIGH VOLTAGE SUPPLY. DO NOT OPERATE THE PRODUCT LONGER THAN IS NECESSARY TO LOCATE THE CAUSE OF EXCESSIVE VOLTAGE.
6. REFER TO HV, B + AND SHUTDOWN ADJUSTMENT PROCEDURES DESCRIBED IN THE APPROPRIATE SCHEMATIC AND DIAGRAMS (WHERE USED).

SUBJECT : IMPLOSION

1. ALL DIRECT VIEWED PICTURE TUBES ARE EQUIPPED WITH AN INTEGRAL IMPLOSION PROTECTION SYSTEM. BUT CARE SHOULD BE TAKEN TO AVOID DAMAGE DURING INSTALLATION. AVOID SCRATCHING THE TUBE. OF SCRATCHED REPLACE IT.
2. USE ONLY RECOMMENDED FACTORY REPLACEMENT TUBES.

SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBYHOLE OR CLOSELY FITTING SHELF SPACE, OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PLACEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT, MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS. A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS)TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM, BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES. INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH T.V.S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS, EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

Product safety servicing guidelines for color television receivers

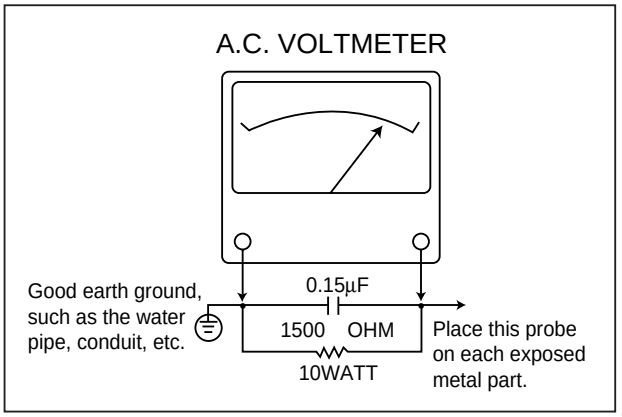
CAUTION : Do not attempt to modify this product in any way. Unauthorized modifications will not only void the warranty, but may lead to your being liable for any resulting property damage or user injury.
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines. To do otherwise, increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

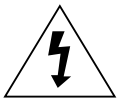
After the original service problem has been corrected, a check should be made of the following:

SUBJECT : FIRE & SHOCK HAZARD

1. Be sure that all components are positioned in such a way as to avoid possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Never release a repair unless all protective devices such as insulators, barriers, covers, shields, strain reliefs, and other hardware have been reinstalled per original design.
3. Soldering must be inspected to discover possible cold solder joints, frayed leads, damaged insulation (including A.C. cord), solder splashes or sharp solder points. Be certain to remove all loose foreign particals.
4. Check for physical evidence of damage or deterioration to parts and components, and replace if necessary follow original layout, lead length and dress.
5. No leads or components should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. All critical components such as fuses, flameproof resistors, capacitors, etc. must be replaced with exact factory types. Do not use replacement components other than those specified or make unrecommended circuit modifications.
7. After re-assembly of the set always perform an A.C. leakage test on all exposed metallic parts of the cabinet, (the channel selector knob, antenna terminals, handle and screws) to be sure the set is safe to operate without danger of electrical shock. **Do not use a line isolation transformer during this test.** Use an A.C. voltmeter, having 5000 ohms per volt or more sensitivity, in the following manner : connect a 1500 ohm 10 watt resistor, paralleled by a 15 mfd. 150V A.C. type capacitor between a known good earth ground 9water pipe, conduit, etc.) and the exposed metalic parts, one at a time. Measure the A.C. voltage across the combination of 1500 ohm resistor and 0.15 MFD capacitor. Reverse the A.C. plug and repeat A.C. voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts R.M.S. This corresponds to 0.5 milliamp A.C. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

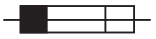

A.C. VOLTMETER
Good earth ground, such as the water pipe, conduit, etc.
0.15μF
1500 OHM
10WATT
Place this probe on each exposed metal part.

GRAPHIC SYMBOLS :



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the service personnel to the presence of uninsulated “dangerous voltage” that may be of sufficienty magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the service personnel to the presence of important safety information in service literature.



Fuse symbol is printed on pcb adjacent to the fuse, with ‘RISK OF FIRE REPLACE FUSE AS MARKED’ . The symbol is explained in the service manual with the following wording or equivalent.
“CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE 4A, 125V FUSE” and “ATTENTION: AFIN D’ ASSU UNE PROTECTION PERMANENTE CONTRE LES RISQUES D’ INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE 4A, 125V”.

SUBJECT : X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of X-rays in current T.V. receivers is the picture tube. However, this tube does not emit X-rays when the high voltage is at the factory specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high voltage supply and, under certain circumstances, may produce radiation in excess of desirable levels.
2. Only factory specified C.R.T. anode connectors must be used. Degaussing shields also serve as X-ray shield in color sets. Always re-install them.
3. It is essential that the serviceman has available an accurate and reliable high voltage meter. The calibration of the meter should be checked perio - dically against a reference standard. Such as the one available at your distributor.
4. When the high voltage circuitry is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be run up and down while monitoring the high voltage

with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly. We suggest that you and your service orgainzation review test procedures so that voltage regulation is always checked as a standard servicing procedure. And that the high voltage reading be recorded on each customer' s invoice.

5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tobe and the high voltage compartment.
   Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.
6. Refer to HV, B+and Shutdown adjustment procedures described in the appropriate schematic and diagrams(where used).

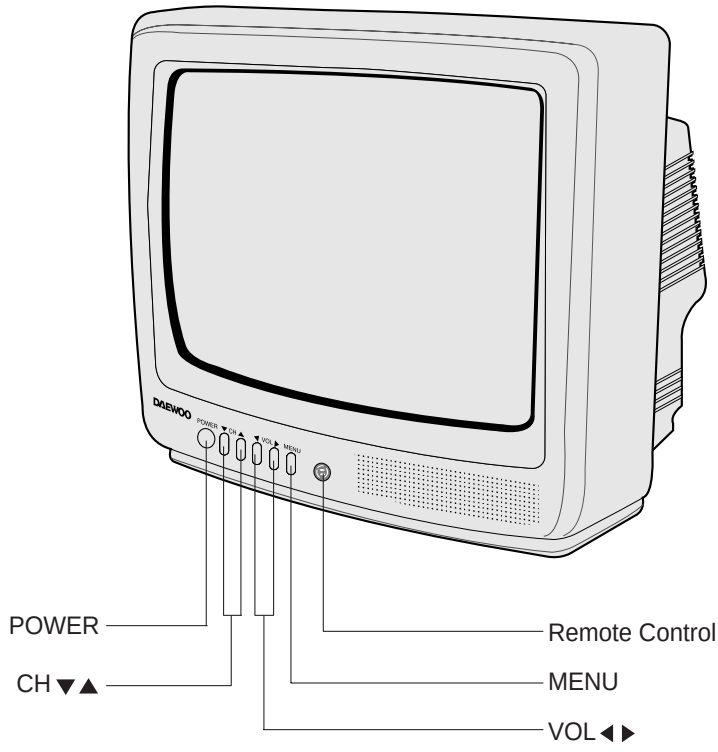
SUBJECT : IMPLOSION

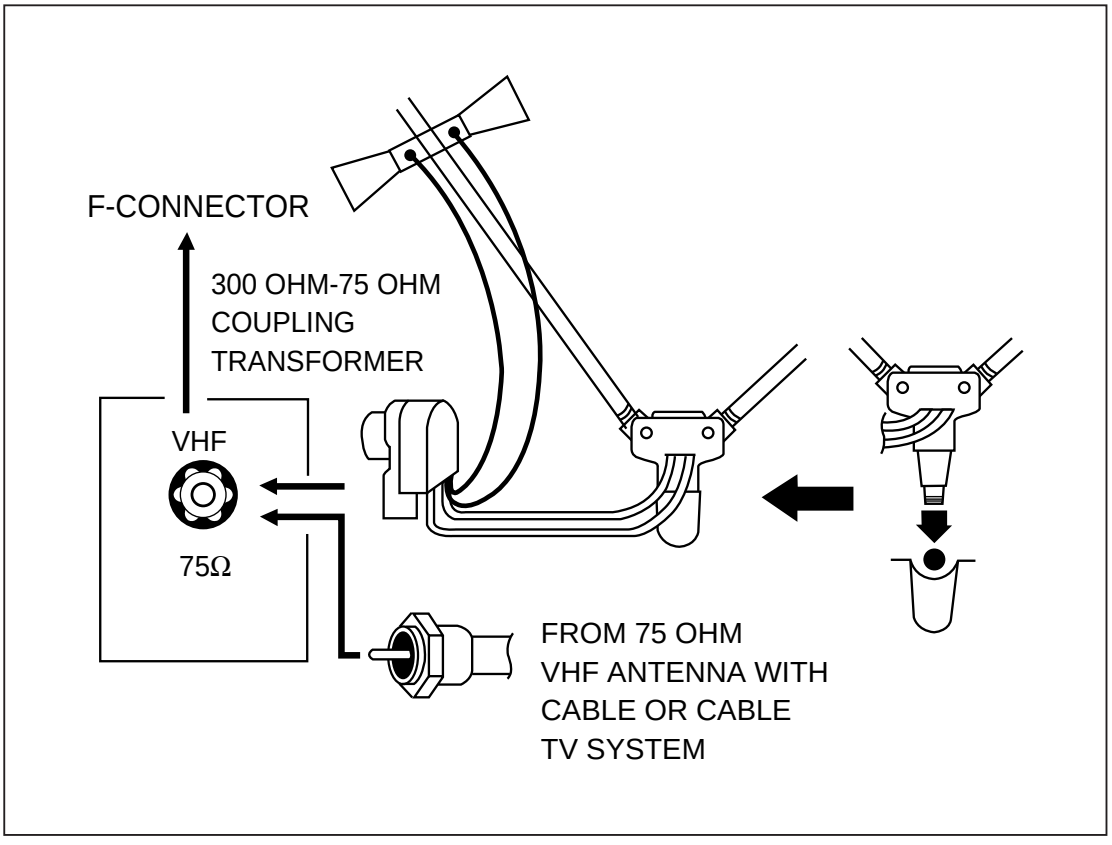
1. All direct viewed picture tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage during installation. Avoid scratching the tube. If scratched, replace it.
2. Use only recommended factory replacement tubes.

SUBJECT : TIPS ON PROPER INSTALLATION

1. Never install any receiver in closed-in recess, cubbyhole or closely fitting shelf space over, or close to heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as : Outdoor patio installations where dew is a factor. Near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct rear venting. The customer should also avoid the use of decorative scarves or other coverings which might obstruct ventilation.
4. Wall and shelf mounted installations using a commercial mounting kit, must follow the factory approved mounting instructions. A receiver mounted to a shelf or platform must retain its original feet(or the equivalent thickness in spacers) to provide adequate are flow across the bottom, blots or screws used for fasteners must not touch and parts or wiring. Perform leakage test on customized installations.
5. Caution customers against the mounting of a receiver on sloping shelf or a tilted position, unless the receiver is properly secured.
6. A receiver on a roll-about cart should be stable on its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against the use of a cart or stand which has not been listed by underwriters laboratories, inc. For use with their specific model of television receiver or generically approved for use with T.V.' s of the same or larger screen size.

CONTROL VIEW



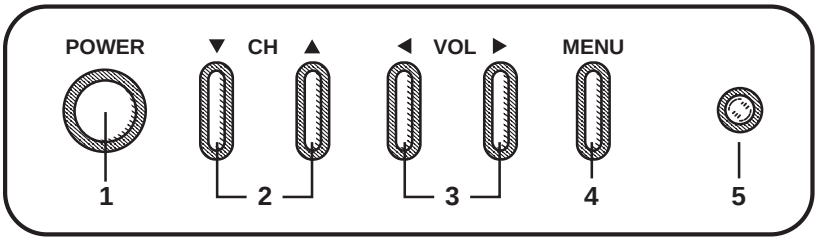


1. Overview of Your Equipment

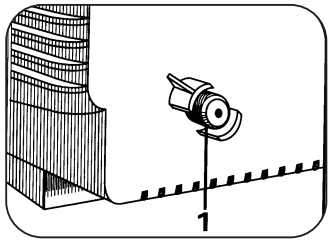
Your TV comes with a remote control. The section below summarizes the buttons,controls, and terminals that you will use with your TV.

2. Your TV' s Front Panel

1. POWER
   Use this buttom to turn your TV on or off.
2. ▼CH▲
   Use these buttom to change channels on your TV, or to select items in the menu system.
3. ◀VOL▶
   Use these buttom to change your TV' s volume, to activate selections in the menu system, or to change audio and video settings.
4. MENU
   Use this buttom to turn the TV' s menu system on and off.
5. Remote control receiver
   This receiver receives a signal from your remote control. Do not block it.



3. Your TV' s Back Panel



1. Antenna terminal
   Use this terminal to attach an antenna or cable system to your TV.

IMPORTANT SERVICE NOTES

1. X-RAY RADIATION PRECAUTION

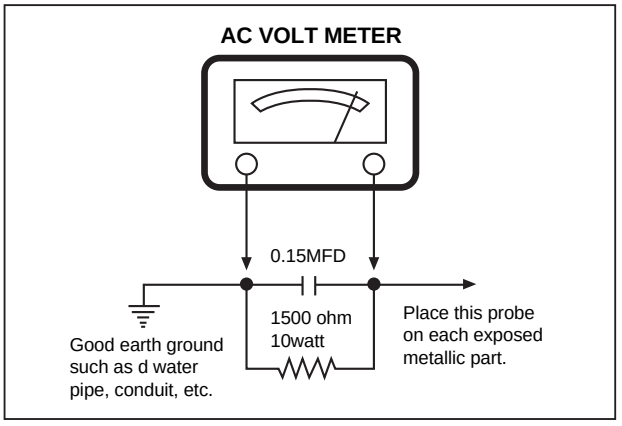
1) Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is 24.4kv at zero beam current (minimum brightness) under a 120V AC power source. The high voltage must not, under any circumstances, exceed 27kv (28.5kw). Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure on page 6 of this manual. It is recommended as a parts of the service record. It is important to use an accurate and reliable high voltage meter.
2) This receiver is equipped with X-RADIATION PROTECTION circuit which prevents the receiver from producing an excessively high voltage even if the B+voltage increases abnormally. Each time the receiver is serviced, X-RADIATION PROTECTION circuit must be checked to determine that the circuit is properly functioning, following the X-RADIATION PROTECTION CIRCUIT CHECK procedure on page 6 of this manual.
3) The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
4) Some parts in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

2. SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precaution on this receiver. The following are the necessary precaution to be observed before servicing.

1) Since the chassis of this receiver has hazardous potential to ground whenever the receiver is plugged in (floating chassis), an isolation transformer must be used during servicing to avoid shock hazard.
2) Always discharge the picture tube anode to the CRT conductive coating the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatterproof goggles and keep picture tube away from the body while handling.
3) When placing chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network, etc.
4) Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as antennas, terminals, screw-heads, metal overlays, control shafts etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner.

Connect at 1500 ohm 10 watt resistor, paralleled by a 0.15 mfd. AC type capacitor, between a known good earth ground (water pipe, conduit etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 ohm resistor and 0.15 mfd capacitor. Voltage measured must not exceed 0.3 volts RMS. This corresponds to 0.2 millliamp. AC. Any value exceeding the limit constitutes a potential shock hazard and must be corrected immediately.



3. PRODUCT SAFETY NOTICE

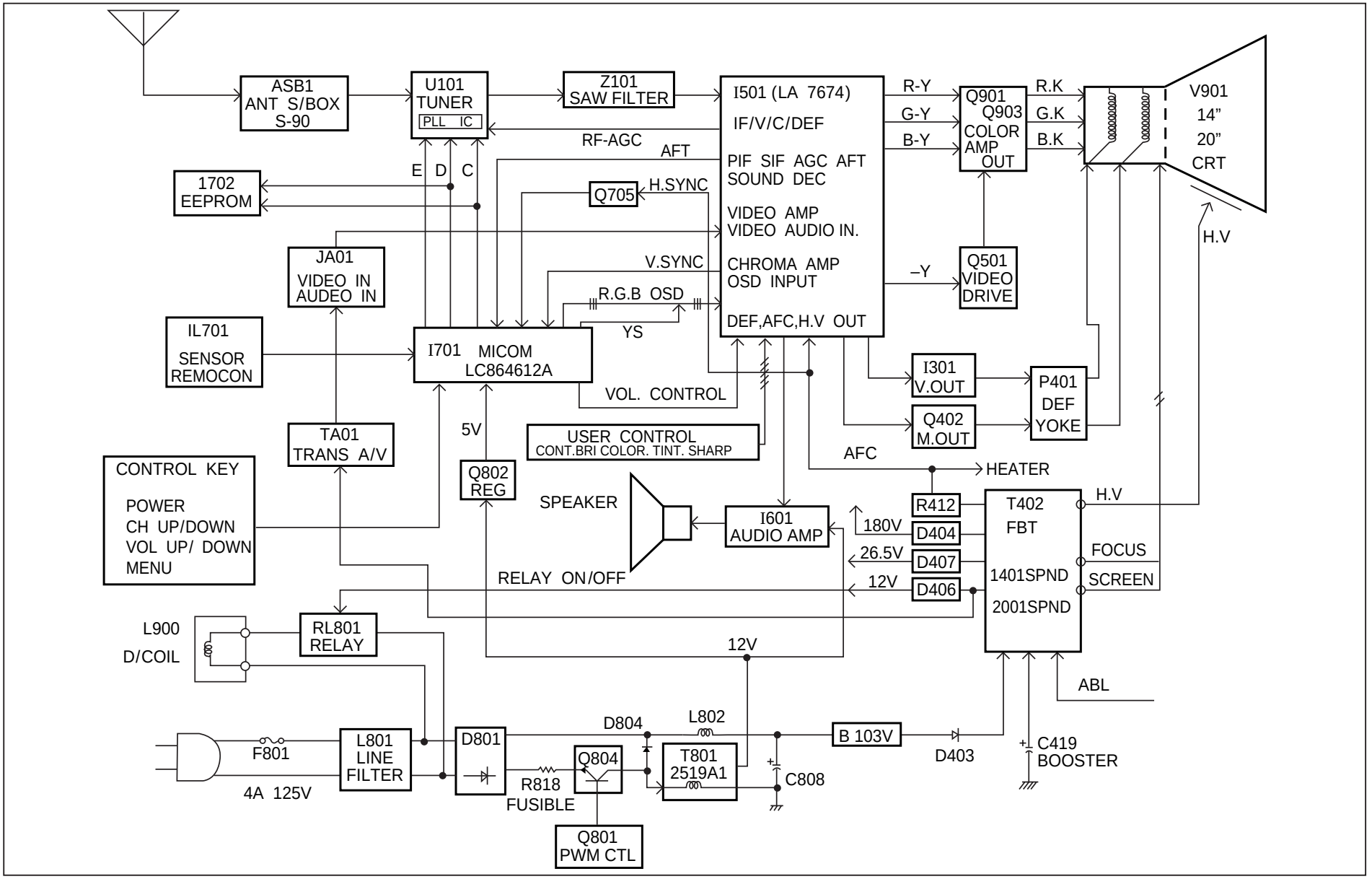
Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by shading on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create X-ray radiation or other hazards.

4. SERVICE NOTES

1) When replacing parts or circuit boards, clamp or bend the lead wires to terminals before soldering.
2) When replacing a high wattage resistor (metal oxide film resistor) in the circuit board, keep the resistor min 1/2 inch away form circuit board.
3) Keep wires away from high voltage or high temperature components.

* Minimum brightness

BLOCK DIAGRAM



GENERAL ADJUSTMENTS

1. GENERAL

In the majority of cases, all color televisions will need only slight touch-up adjustment upon installation. Check the basic characteristics such as height, focus and sub- basic characteristics such as height, focus and sub- bright. Observe the picture for good black and white details without objectionable color shading. If color shading is evident, demagnetize the receiver. If color shading still persists, perform purity and convergence adjustments. This should be all that is necessary to achieve Optimum receiver performance.

2. VERTICAL HEIGHT ADJUSTMENT

1) Tune in an active channel.
2) Adjust brightness and contrast controls for a good picture.
3) Adjust vertical height control (R305) for approximately one half inch over scan at top and bottom of picture screen.
4) Vertical centering adjustment VR316
   Horizontal centering adjustment VR556.

3. FOCUS ADJUSTMENT

1) Tune in an active channel.
2) Adjust brightness, sharpness and contrast controls for a good picture.
3) Adjust focus control (part of T402) for sharp scanning lines and/or sharp picture.

4. RF AGC ADJUSTMENT

1) Tune in an active channel.
2) Using the attenuator, apply the signal of 60dBm to the antenna input terminal.
3) Turn RF AGC control (R113) full clockwise until snow or/and noise appears in the picture, then slowly turn control counter clockwise until snow or/and noise disappears.

5. HIGH VOLTAGE CHECK

High voltage is not adjustable but must be checked to verify that the receiver is operating within safe and efficient design limitations as specified:

1) Operate Receiver for at least 15 minutes at 120V AC line.
2) Set brightness sharpness, contrast and color control to minumum position (Zero beam).
3) Connect accurate high voltage meter to CRT anode. The reading should be 24kv~26kv

If a correct reading cannot be obtained, check circuity for malfunctioning components.

6. X-RADIATION PROTECTION
   CIRCUIT TEST

When service has been performed on the horizontal deflection system, high voltage system or B+system, the X-RADIATION protection circuit must be tested for proper operation as follows:

1) Operate receiver for at least 15 minutes at 120V AC line.
2) Adjust all customer controls for normal picture and sound.
3) Short R414(X-RAY Short test), and remove short clip.
4) If the operation of horizontal osc. does not stop in step The circuit must be repaired, before the set is returned to the customer.

7. CRT GRAY SCALE ADJUSTMENT

1) Tune in an active channel.
2) Set the COLOR control to minimum.
3) Turn the SCREEN control (on T402 fully counter-clockwise.)
4) Rotate the RED, GREEN and BLUE BIAS controls (R906, R913, R920) counterclock wise from the maximum, set them to the position where notches in the knobs become parallel to the surface of P.C. Board.
5) Set the GREEN and BLUE DRIVE controls (R911, R918) to the mid position.
6) Turn the service switch SW901 (Service Position) on the CRT board.
7) Rotate the SCREEN control (on T402) gradually clockwise until the second horizontl line following the first line appears slightly on the screen. Then turn fully counterclockwise the two BIAS controls corresponding to the colors of the first and the second horizontal lines to eliminated the lines.
8) Set the SCREEN control to the position where the third horizontal line lights slightly on the screen.
9) Adjust the two BIAS control set to the minimum in item 7) above to obtain the slightly lighted horizontal line in the same levels of three (red, green, blue) colors. (The line should be white if the BIAS controls are adjusted properly.)
10) Turn the service switch SW901 again (Normal position on the CRT board.)
11) Press PICTURE-SEL, P-UP and set the brightness and contrast controls to the maximum.
12) Adjust the BLUE and GREEN DRIVE control to obtain proper white-blanced picture in high light areas.
13) Using P-SEL, P-DN key, set the brightness and contrast controls to obtain dark gray raster. Then check the white balance in low brightness. Of the white balance is not proper, retouch the BIAS controls and DRIVE controls to obtain a good white balance in both low and high light areas.

8. MAIN B+(103V) ADJUSTMENT

1) Tune in an active channel
2) Check TP7 (DC 103V Line) using D.V.M
3) Adjust voltage control (R820) for main B+(DC 103V)

9. SUB-BRIGHTNESS ADJUSTMENT

1) Tune in a color program.
2) Set the CONTRAST control to maximum and the BRIGHTNESS control to maximum and the SHARPNESS control to the center position.
3) Set the COLOR and TINT controls to center.
4) Set the SUB-BRIGHT control R554 to center and leave the receiver on five minutes in this state.
5) Watching the picture carefully, adjust the SUB-BRIGHT control in the position where the picture does not show evidence of blooming in high brightness area and not appear too dark in low bright area.
6) Check for BRIGHTNESS controls at both extremes.
7) If the picture does not appear dark with the CONTRAST and BRIGHTNESS control turned to minimum, or not appear bright with the controls turned to maximum, adjust the SUB-BRIGHT control again for an acceptable picture.

10. CONVERGENCE MAGNET ASSEMBLY POSITIONING

If Convergence magnet assembly and rubber wedges need mechanical positioning follow figure 2.

10-1. COLOR PURITY ADJUSTMENT

NOTE : Before attempting any purity adjustments, the receiver should be operated for at least 15 minutes.

1) Demagnetize the picture tube with a degaussing coil.
2) Adjust the CONTRAST and BRIGHTNESS controls to maximum
3) Adjust RED and BLUE Bias controls (R971 and R973) to provide only a green raster. Adjust the GREEN BIAS control (R972) if necessary.
4) Loosen the clamp screw holding the yoke, and slide the yoke backward th provide vertical green belt(zone)in the picture screen.
5) Remove the Rubber Wedges.
6) Rotate and spread the tabs of the purity magnet (See figure 2) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, center the raster vertically.
7) Move the yoke slowly forward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.
8) Check the purity of the red and blue raster by adjusting the BIAS controls.
9) Obtain a white raster, referring to “CRT GRAY SCALE ADJUSTMENT”.
10) Proceed with covergence adjustment.

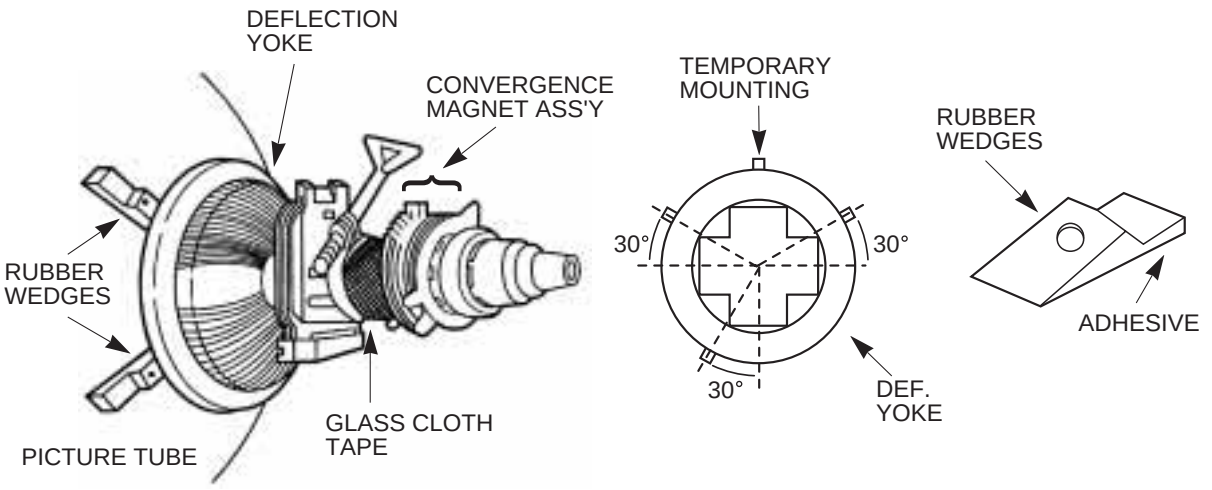


Fig. 2 Rubber Wedges Location

10-2. CONVERGENCE ADJUSTMENTS

NOTE : Before attempting any purity adjustments, the receiver should be operated for at least 15 minutes.

A. CENTER CONVERGENCE ADJUSTMENT

1) Receive crosshatch pattern with a crosshatch signal generator.
2) Adjust the BRIGHTNESS and CONTRAST Controls for a good picture.
3) Adjust two tabs of the 4-Pole Magnets to change the angle between them (See Fig. 3) and superimpose red and blue vertical lines in the center area of the picture screen. (See Fig. 4)
4) Turn both tabs at the same time keeping their angles constant to superimpose red and blue horizontal lines at the center of the screen. (See Fig. 4)
5) Adjust two tabs of 6-Pole Magnets to superimpose red/blue line with green on top of each other. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6) Repeat adjustments 3), 4), 5) keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole Magnets interact and make dot movement complex.

B. CIRCUMFERENCE CONVERGENCE ADJUSTMENT

NOTE : This adjustment requires Rubber Wedge Kit.

1) Loosen the clamping screw on deflection yoke to allow the yoke to tilt.
2) Place a wedge as shown in figure 2 temporarily. (Do not remove cover paper on adhesive part of the wedge.)
3) Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (See Fig. 4) Push the mounting wedge into the space between picture and the yoke to hold the yoke temporarily.
4) Place other wedge into bottom space and remove the cover paper to stick.
5) Tilt front of the yoke right or left to obtain better convergence in cicumference. (See Fig. 4)
6) Hold the yoke position and put another wedge in either upper space. Remove cover paper and stick the wedge on picture tube to hold the yoke.
7) Detach the temporarily mounted wedge and put it in another upper space. Stick it on picture tube to fix the yoke.
8) After placing three wedges, re-check overall convergence. Tighten the screw firmly to hold the yoke tightly in place.
9) Stick 3 adhesive tapes on wedges as shown in figur32.

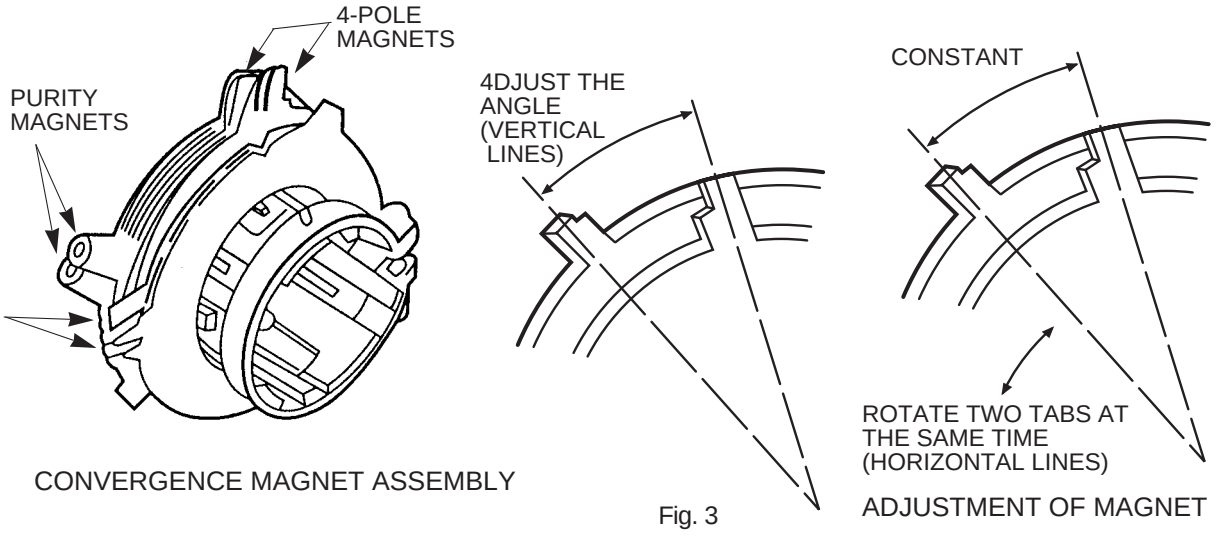


Fig. 3

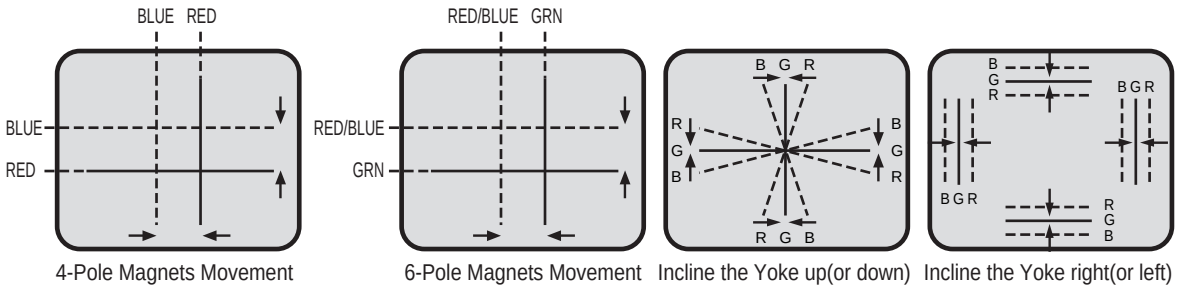


Fig. 4 Dot Movement Pattern

11. PICTURE IF/AFT ADJUSTMENTS

NOTE : THIS RECEIVER IS TRANSISTORIZED AND SPECIAL CARE MUST BE TAKEN WHEN SERVICING. READ THE FOLLOWING (NOTES BEFORE ATTEMPTING ALIGNMENT)

- Alignment requires an exacting procedure and should be undertaken only when necessary.
- Isolation transformer must be used to prevent shock hazard.
- The test equipment specified or its equivalent is required to perform the alignment properly. Use of equipment which does not meet these requirements may result in improper alignment.
- Accurate equipment is essential to obtain proper alignment of this receiver.
- Use of excessive signal from a sweep generator can cause overloading of receiver circuit Overloading should be avoided to obtain a true response curve. Insertion of markers from the marker generator should not cause distortion of the response curve.
- The AC Power line voltage should be kept 120 volts while alignment is being performed.
- Do not attempt to disconnect any components while the receiver is in operation.
  Make sure the power cord is disconnected before replacing any parts in the receiver.

TEST EQUIPMENT

Digital voltmeter	National Model VP-2600A or equivalent
Oscilloscope	Tektronix Model 2215A or equivalent.
Direct/Low-capacity probe	Tektronix Model P6120 or equivalent (Accessory of oscilloscope)
Color-Bar/Dot/Crosshatch generator	Tektronix Model 146 or equivalent.
PIF sweep marker generator	Nihon Tsushinki Model 4723 or equivalent
Power supply	Academy Model 150A or equivalent
Isolation transformer	Voltage adjustable type having capacity of at least 150 watts

BLOCK DIAGRAM

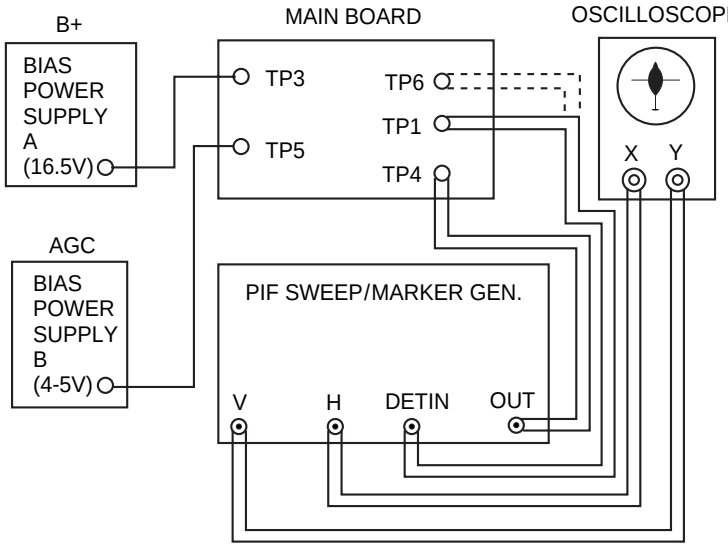


Fig. 5 Picture IF Sweep Alignment

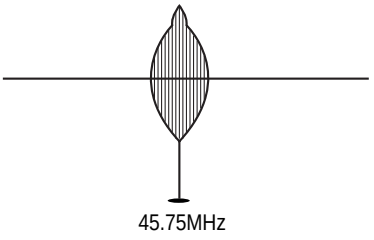


Fig. 6 PIF Response

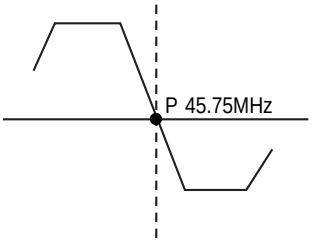
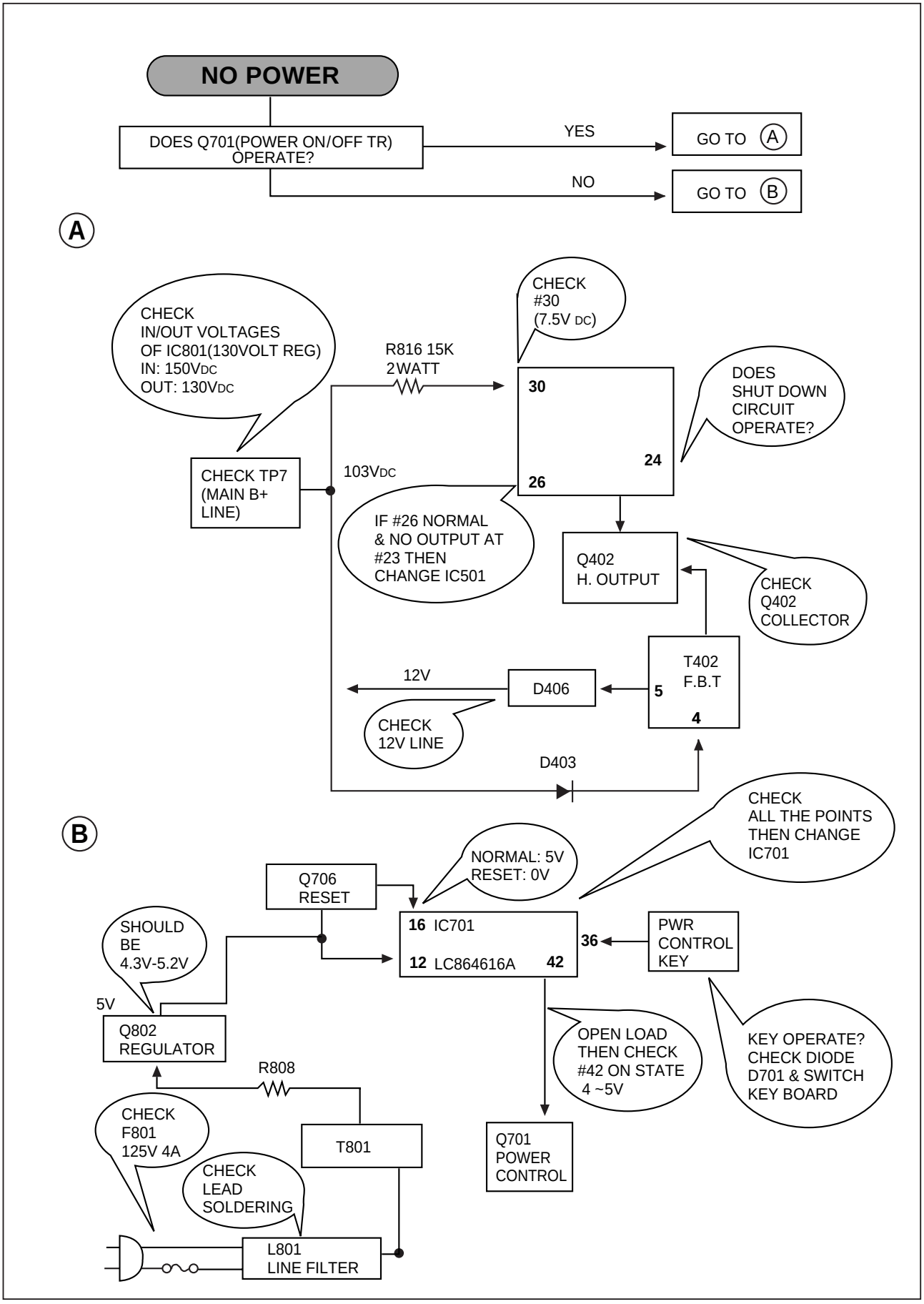
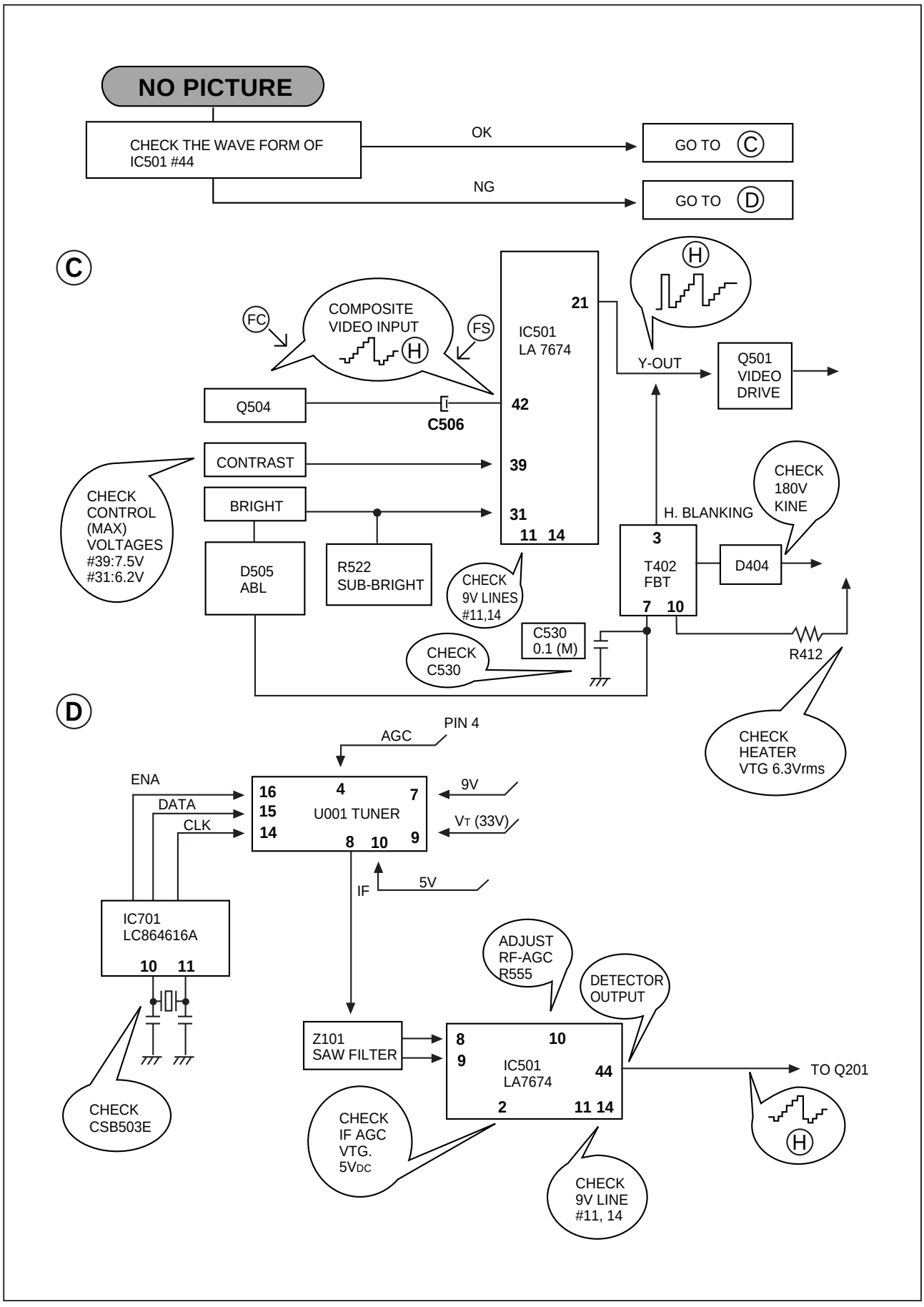


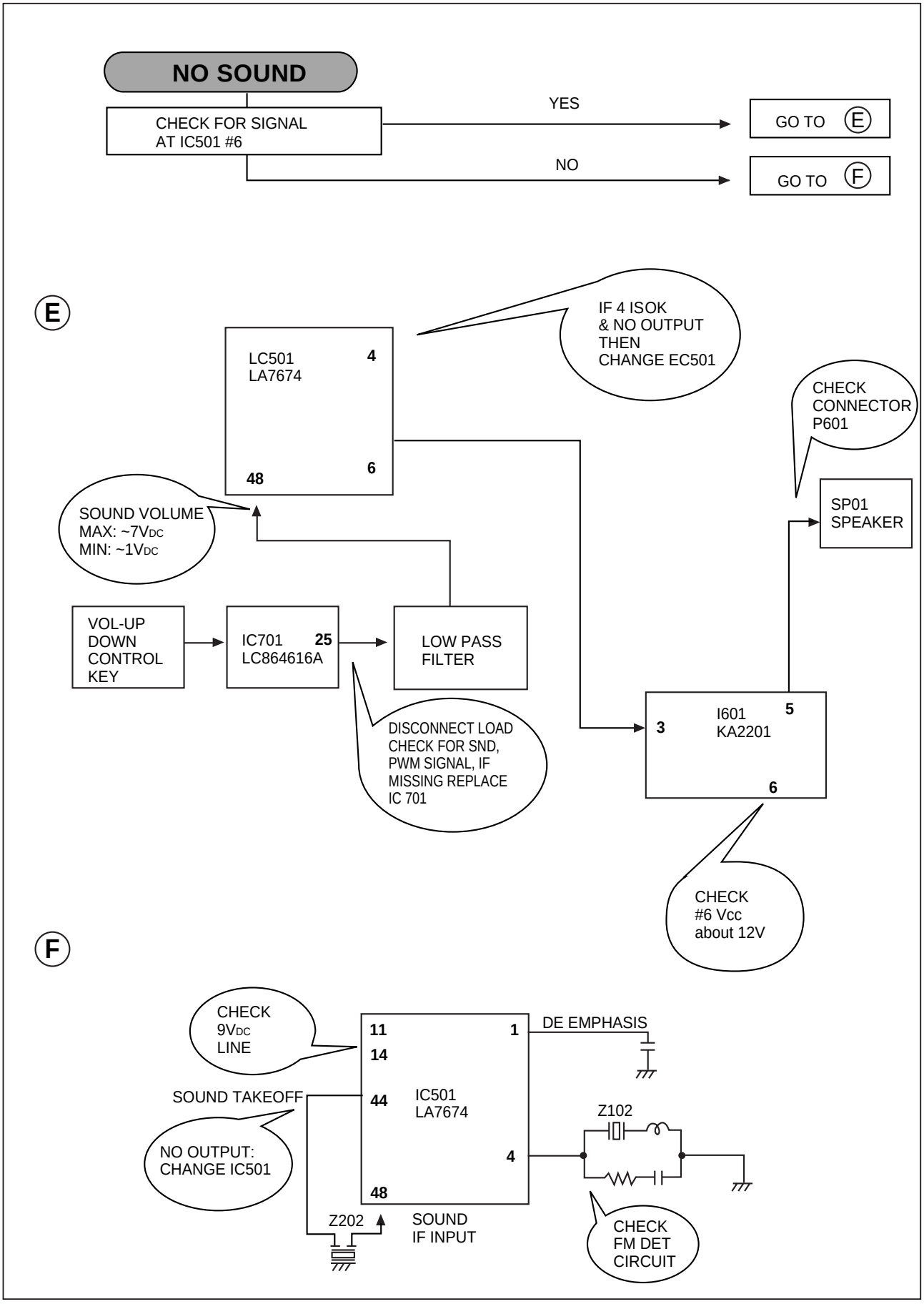
Fig. 7 AFT Response Curve

1) Disconnect the "TUNER IF" output from TP1 and connect equipment as shown above.
2) Set the sweep/marker generator for 30 Vrms.
3) Observe 1 Vp-p on scope by adjusting power supply B (4~5V).
4) Adjust PIF coil L505 for according beat signal with 45.75 MHz marker on scope (See Fig. 6).
5) Connect the 'DET IN' to TP6.
6) Adjust AFT coil L504 for center display at 45.75 MHz on scope (See Fig. 7).
7) After completing the above steps, disconnect equipment and adjust the AGC delay circuit as explained in the General Adjustments section of this manual.

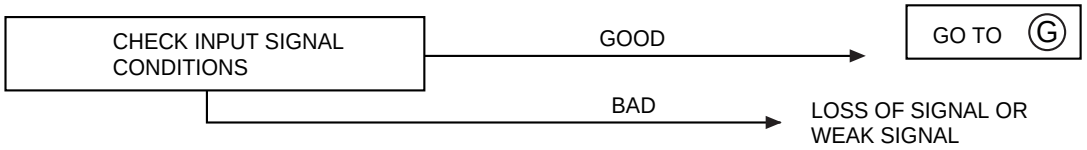
TROUBLE SHOOTING CHARTS




NO PICTURE
CHECK THE WAVE FORM OF IC501 #44
OK
GO TO C
NG
GO TO D
C
FC
COMPOSITE VIDEO INPUT
FS
H
IC501 LA 7674
21
42
39
31
11 14
Y-OUT
Q501 VIDEO DRIVE
Q504
C506
CONTRAST
BRIGHT
CHECK CONTROL (MAX) VOLTAGES #39:7.5V #31:6.2V
D505 ABL
R522 SUB-BRIGHT
CHECK 9V LINES #11,14
H. BLANKING
3
T402 FBT
7 10
D404
CHECK 180V KINE
C530 0.1 (M)
CHECK C530
R412
CHECK HEATER VTG 6.3Vrms
D
PIN 4
AGC
ENA
DATA
CLK
16
15
14
4
7
8 10 9
U001 TUNER
9V
VT (33V)
IF
5V
IC701 LC864616A
10 11
CHECK CSB503E
ADJUST RF-AGC R555
DETECTOR OUTPUT
Z101 SAW FILTER
8
9
10
IC501 LA7674
44
2
11 14
TO Q201
CHECK IF AGC VTG. 5VDC
CHECK 9V LINE #11, 14


NO SOUND
CHECK FOR SIGNAL AT IC501 #6
YES
GO TO E
NO
GO TO F
E
LC501 LA7674
4
6
48
IF 4 ISOK & NO OUTPUT THEN CHANGE EC501
CHECK CONNECTOR P601
SP01 SPEAKER
SOUND VOLUME MAX: ~7VDC MIN: ~1VDC
VOL-UP DOWN CONTROL KEY
IC701 LC864616A
25
LOW PASS FILTER
DISCONNECT LOAD CHECK FOR SND, PWM SIGNAL, IF MISSING REPLACE IC 701
I601 KA2201
3
5
6
CHECK #6 Vcc about 12V
F
CHECK 9VDC LINE
11
14
1
DE EMPHASIS
SOUND TAKEOFF
44
IC501 LA7674
Z102
4
NO OUTPUT: CHANGE IC501
48
Z202
SOUND IF INPUT
CHECK FM DET CIRCUIT

CH DON'T STOP



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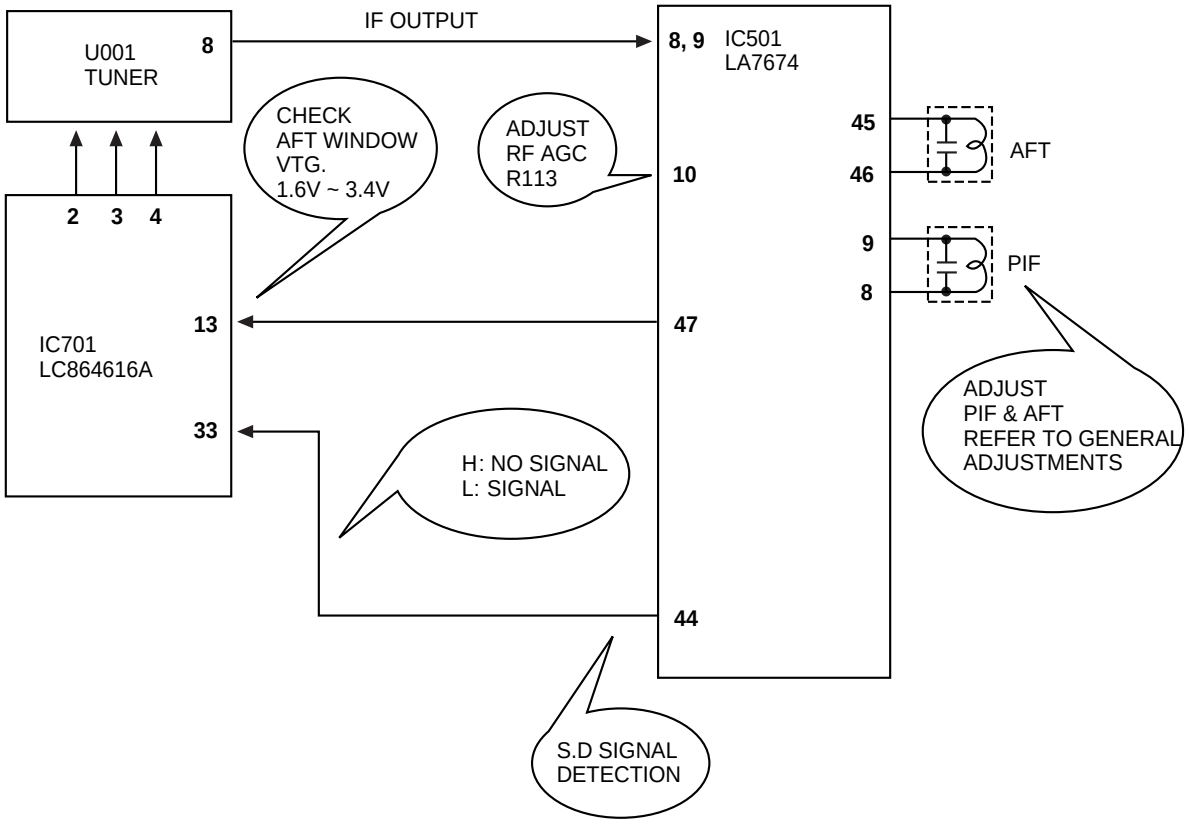
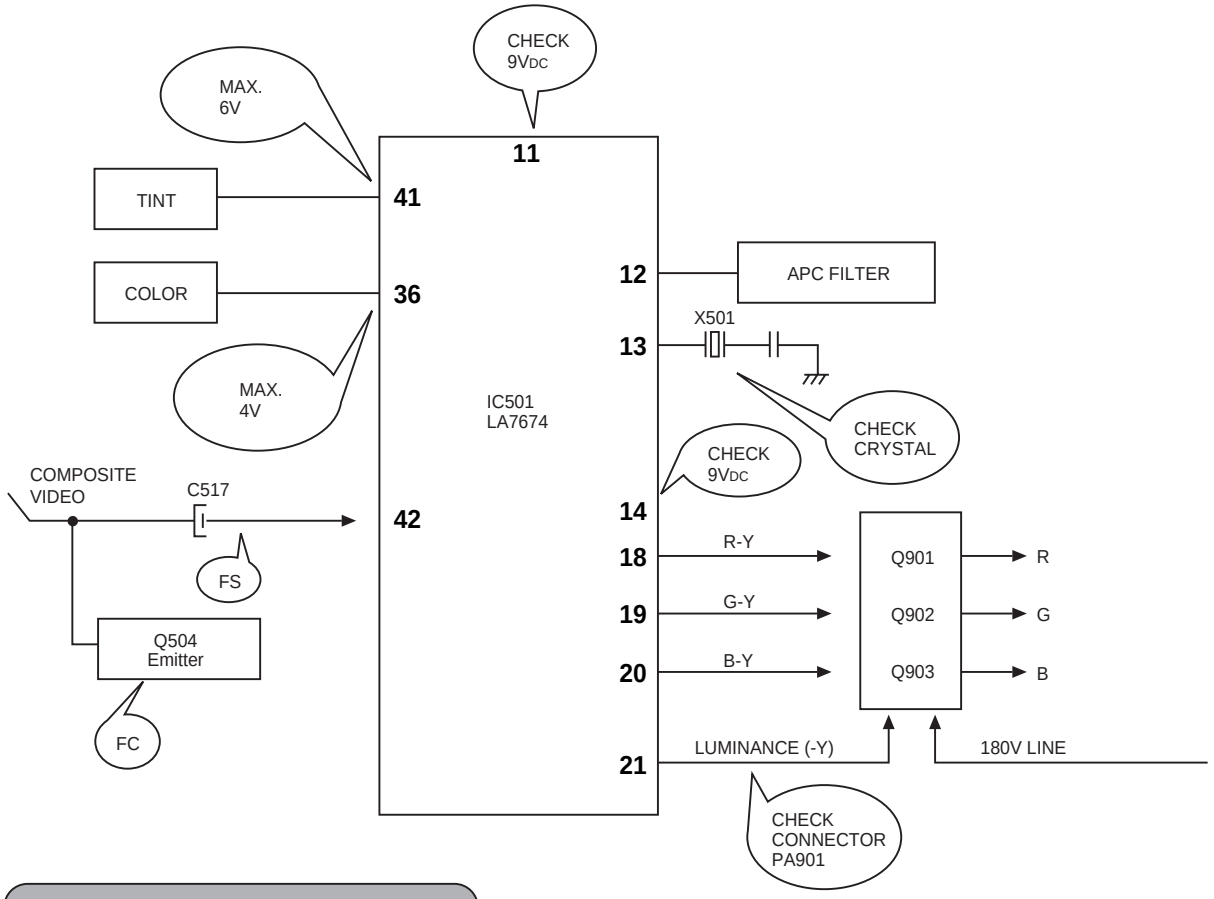
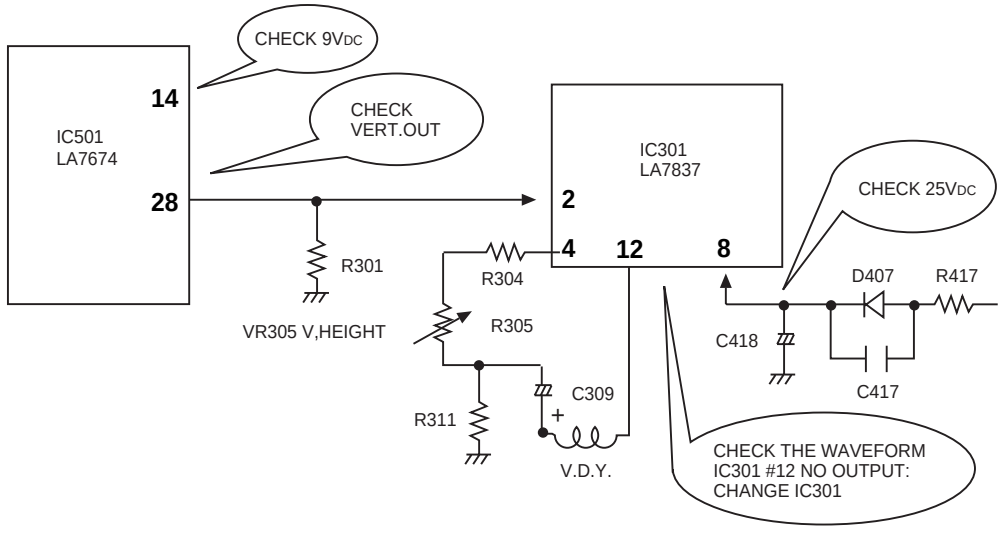


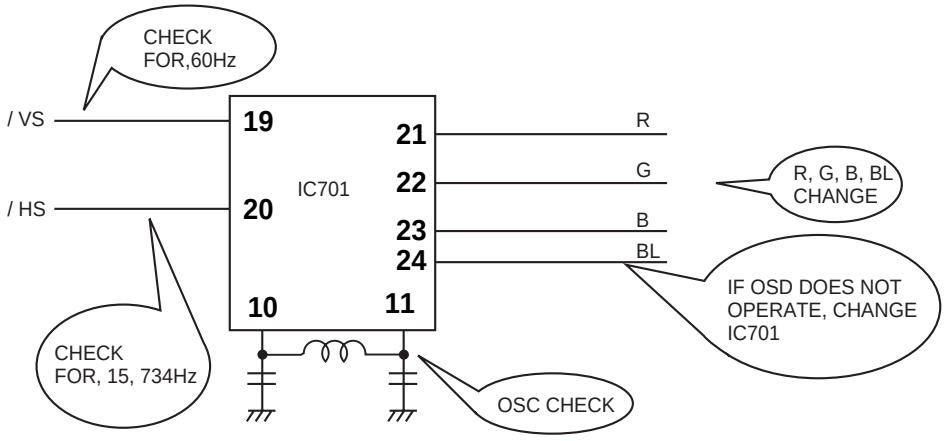
NO COLOR



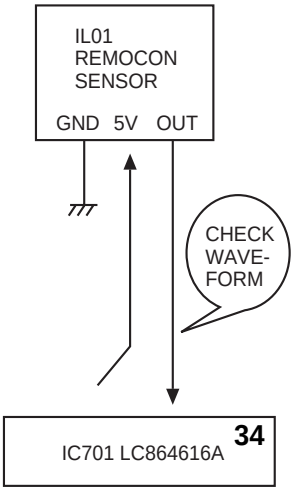
NO VERTICAL DEFLECTION



ON SCREEN DISPLAY DOES NOT OPERATE



REMOTE CONTROL DOES NOT OPERATE

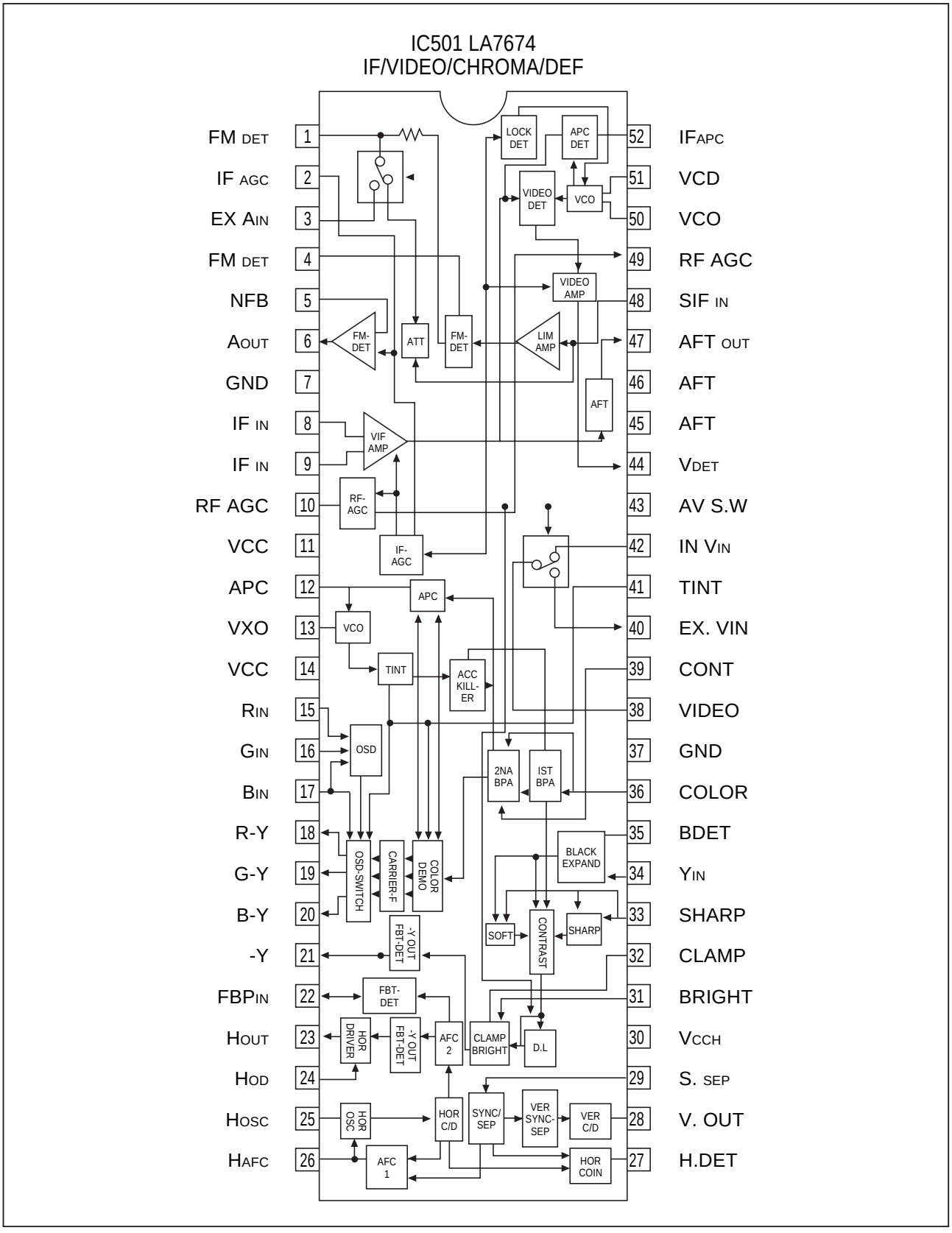


■DESCRIPTION OF SEMICONDUCTORS

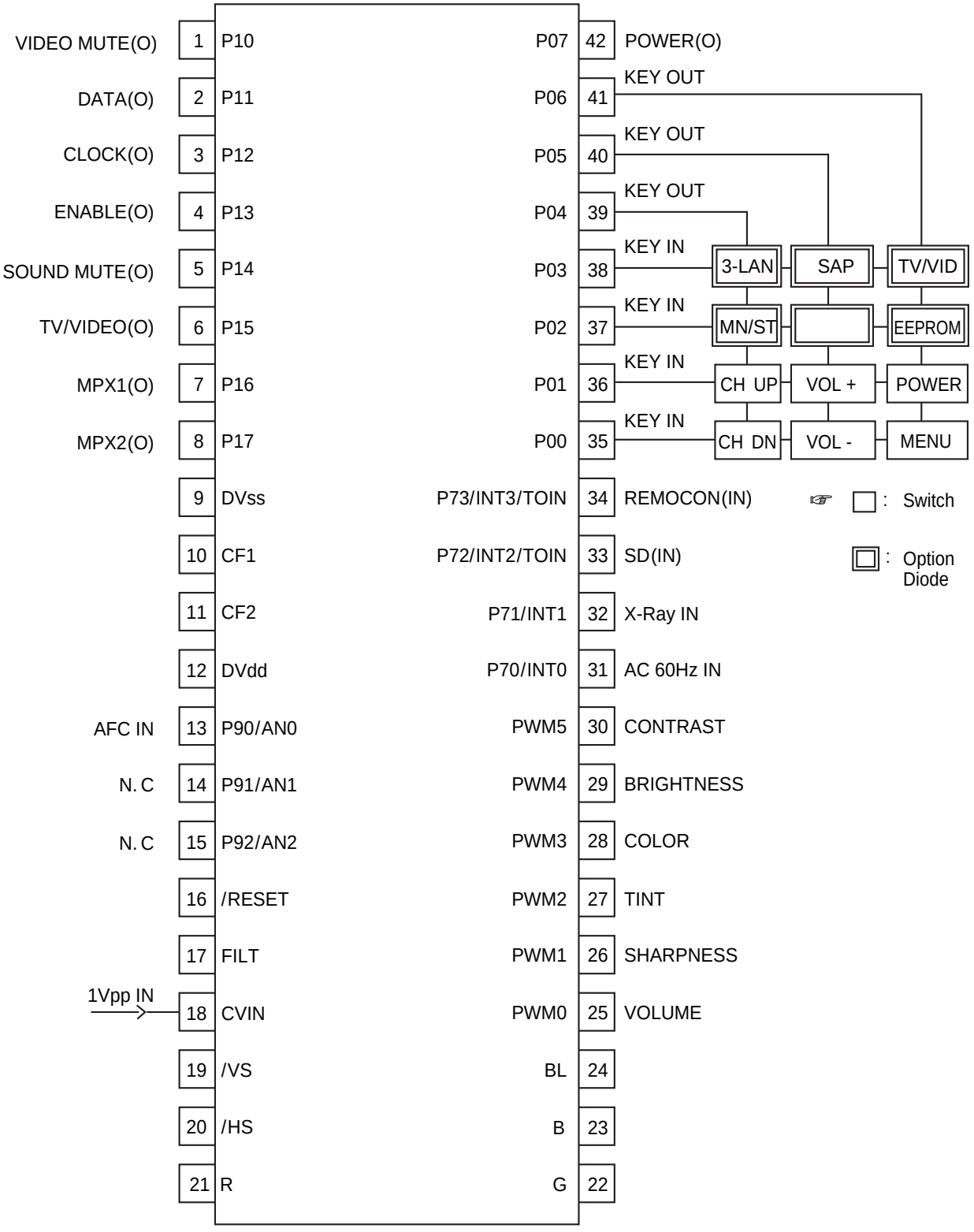
LA7674 (VIF/SIF/VIDEO/CHROMA/DEFLECTION)

1. Case Outline : SDIP 52P

2. Pin Connections/Block Diagram



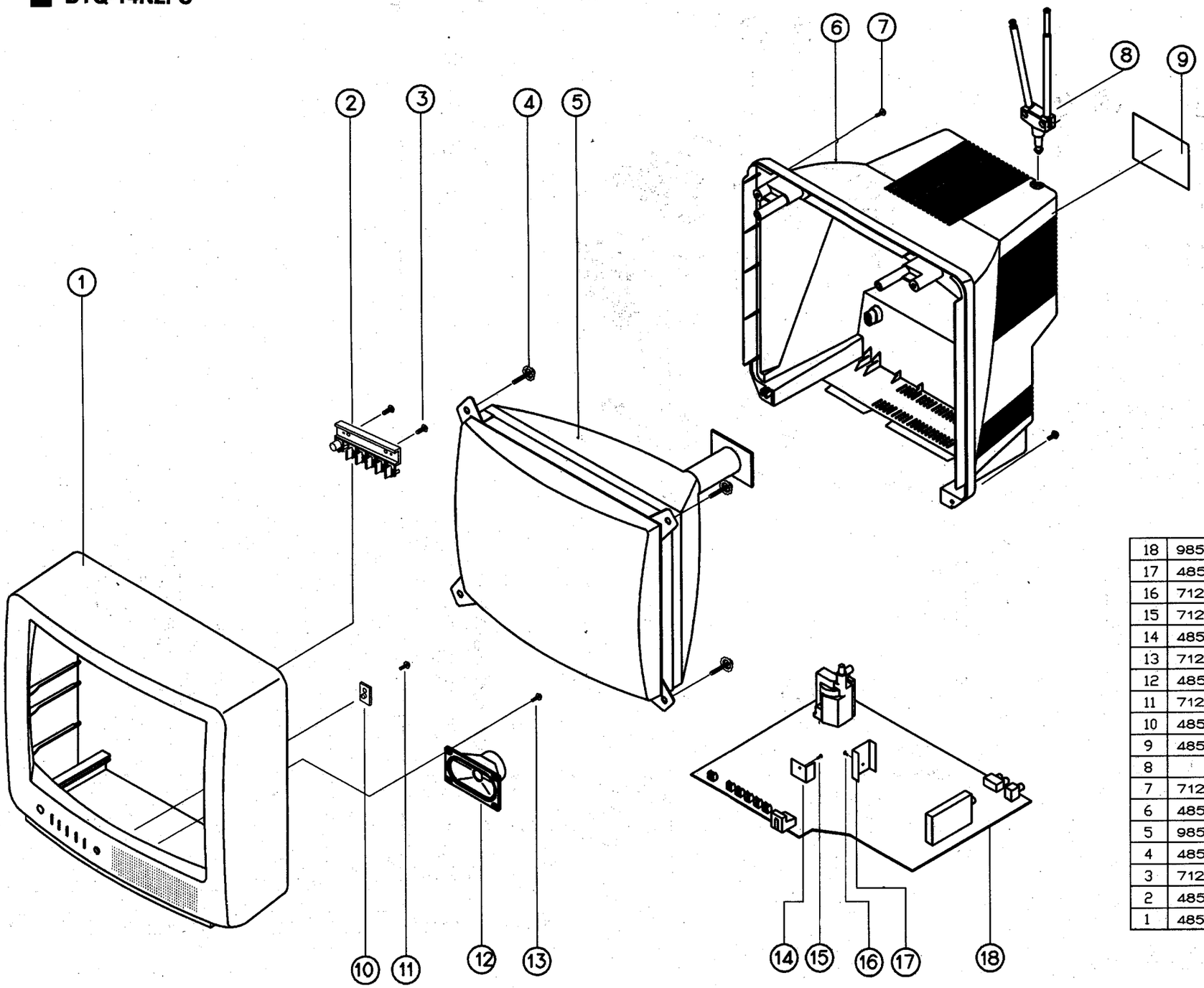
PIN ASSIGN OF IC LC864616A(I701)



NOTE) CF is used 503KHz RESONATOR

EXPLODED VIEW

DTQ-14N2FC



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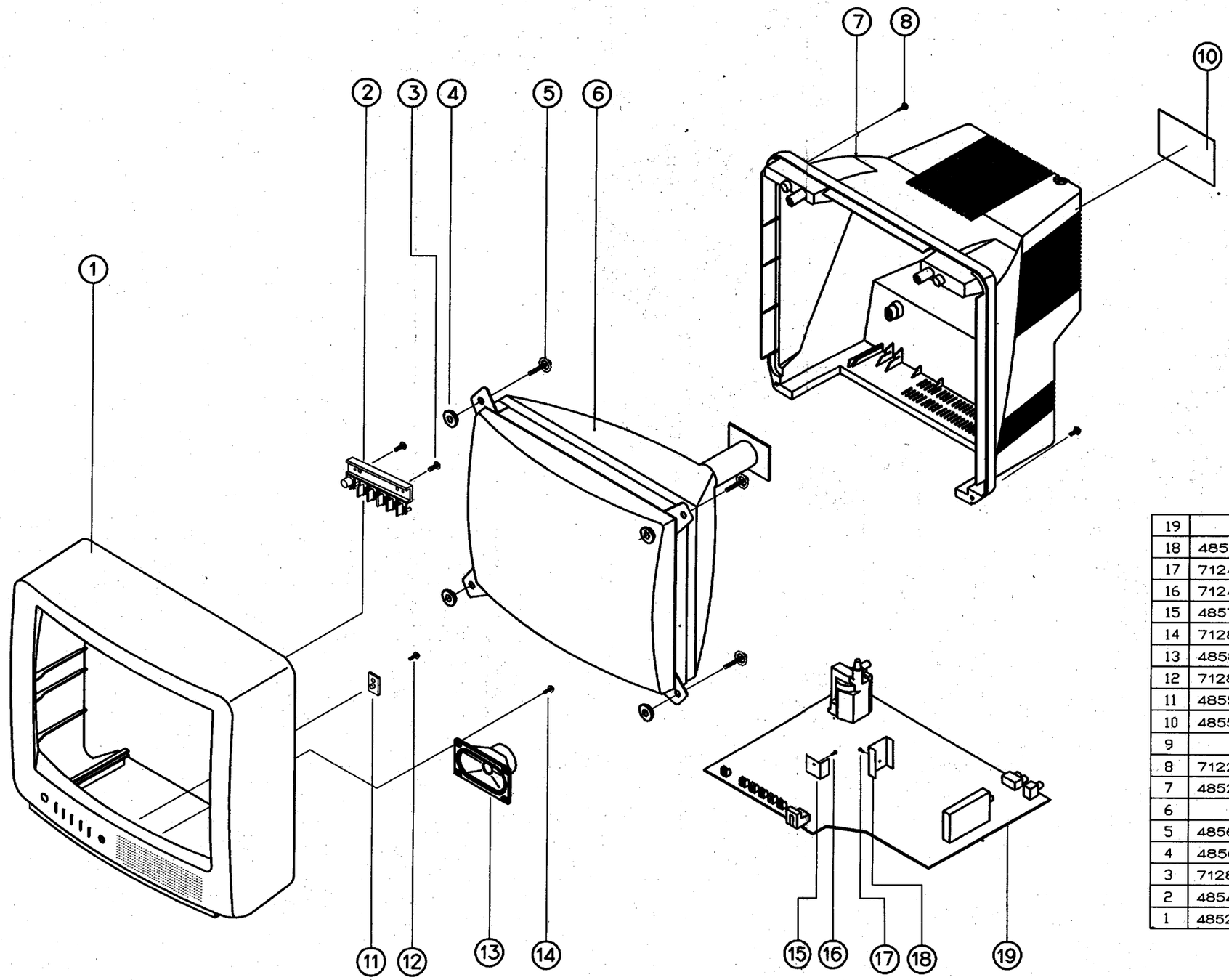
16	7124301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN
15	7124301011	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN
14	4857013300	HEAT SINK	1	SPCC T 1.0 SN-3
13	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
12	4858312310	SPEAKER	1	SP-5090F04
11	7128301011	SCREW TAPPING	1	T2S WAS 3X10 MFZN
10	4855528001	DECO SENSOR	1	PMMA CL
9	4855415800	SPEC PLATE	1	150ART P/E FILM(C/TV)
8		ROD ANT	1	
7	7122401411	SCREW TAPPING	4	T2S TRS 4X14 MFZN
6	4852144400	COVER BACK	1	FR HIPS BK
5	9851979400	CRT AS	1	CN-115I DTQ-14N2FC
4	4856212000	SCREW CRT FIX	4	SWRM+SK-5(L=30)
3	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
2	4854923100	BUTTON	1	ABS BK(D/GY PNT)
1	4852057800	MASK FRONT	1	FR HIPS BK

DTQ-20N2FC



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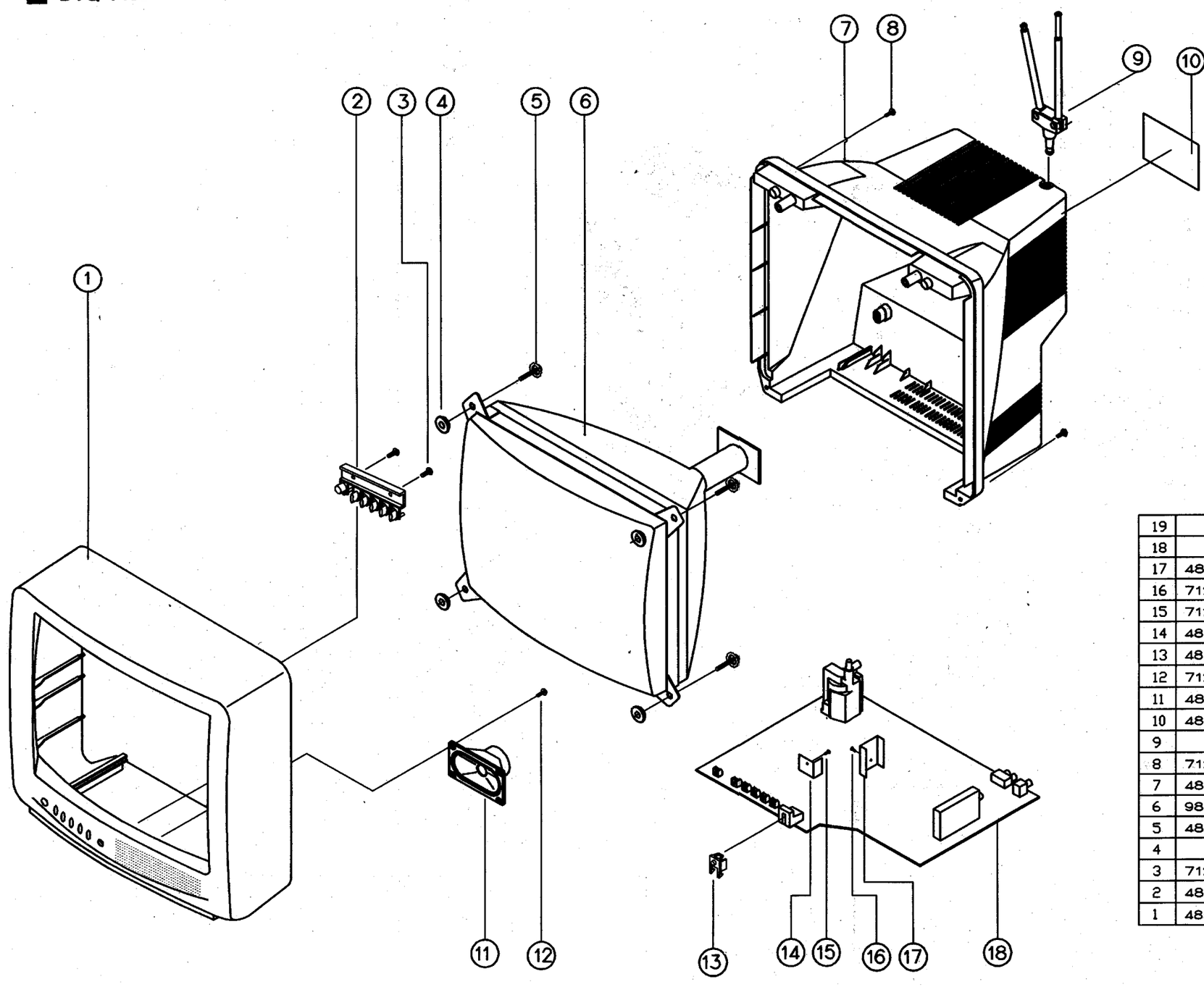
16	7124301011	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN
15	4857013300	HEAT SINK	1	SPCC T1.0 SN-3
14	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
13	4858312310	SPEAKER	1	SP-5090F04
12	7128301011	SCREW TAPPING	1	T2S WAS 3X10 MFZN
11	4855528001	DECO SENSOR	1	PMMA CL
10	4855415800	SPEC PLATE	1	150ART P/E FILM(C/TV)
9				
8	7122401411	SCREW TAPPING	4	T2S TRS 4X14 MFZN
7	4852140300	COVER BACK	1	FR HIPS BK
6		CRT AS		CN-115I DTQ-20N2FC
5	4856212000	SCREW CRT FIX	4	SWRM+SK-5(L=30)
4	4856215401	WASHER RUBBER	4	CR T1.0
3	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
2	4854923100	BUTTON	1	ABS BK(D/GY PNT)
1	4852057700	MASK FRONT	1	FR HIPS BK

DTQ-14J2FC



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16	7124301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN
15	7124301011	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN
14	4857013300	HEAT SINK	1	SPCC T1.0 SN-3
13	4855528200	DECO SENSOR	1	P.C'SMOG
12	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
11	4858312310	SPEAKER	1	SP-5090F04
10	4855415800	SPEC PLATE	1	150ART P/E FILM(C/TV)
9		ROD ANT	1	
8	7122401411	SCREW TAPPING	4	T2S TRS 4X14 MFZN
7	4852144400	COVER BACK	1	FR HIPS BK
6	9851979400	CRT AS		CN-115I DTQ-14j2FC
5	4856212000	SCREW CRT FIX	4	SWRM+SK-5(L=30)
4				
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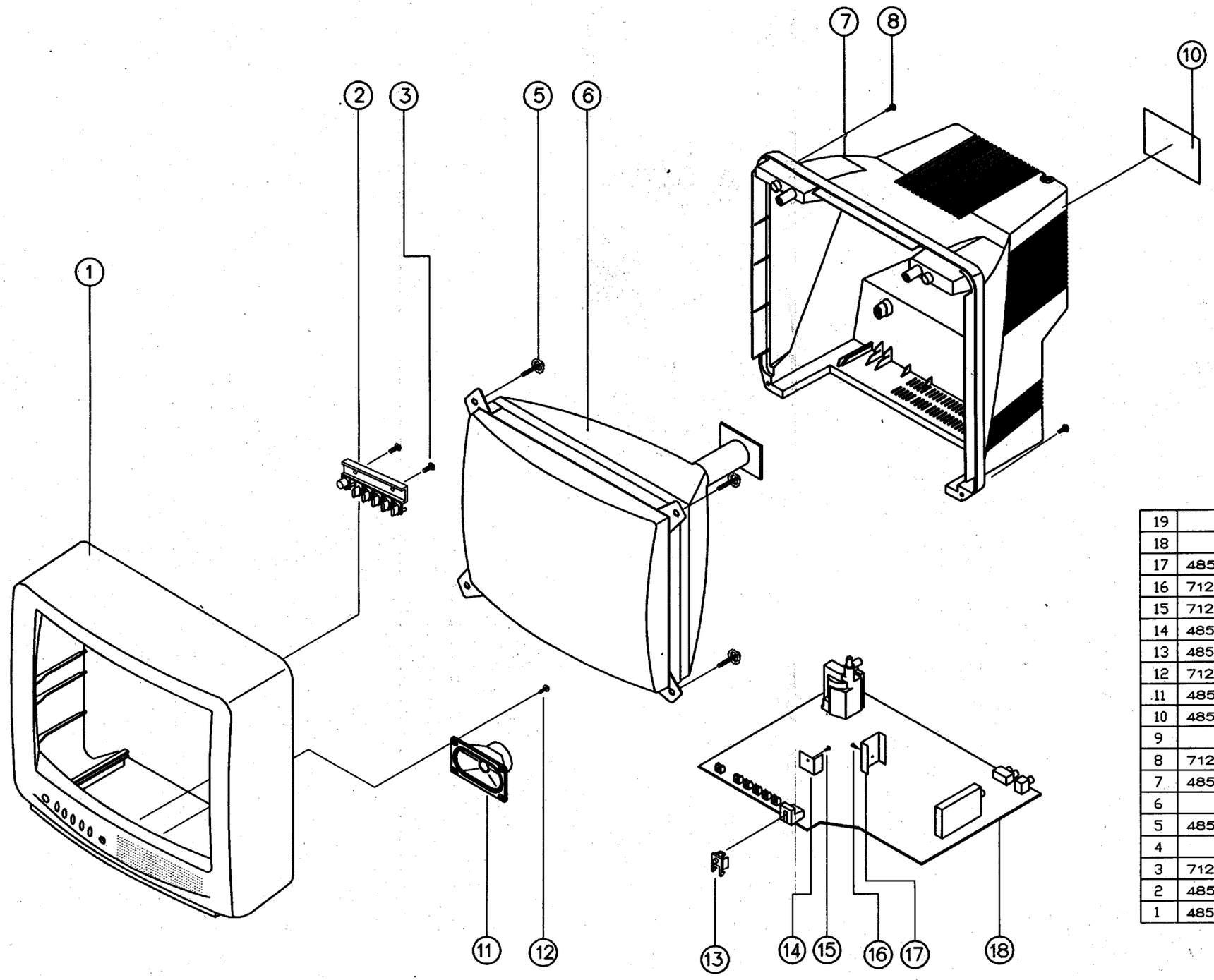
■ **DTQ-20J2FC**



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16	7124301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN
15	7124301011	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN
14	4857013300	HEAT SINK	1	SPCC T1.0 SN-3
13	4855528200	DECO SENSOR	1	P.C SMOG
12	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
11	4858312310	SPEAKER	1	SP-5090F04
10	4855415800	SPEC PLATE	1	150ART P/E FILM(C/TV)
9				
8	7122401411	SCREW TAPPING	4	T2S TRS 4X14 MFZN
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6		CRT AS		CN-115I DTQ-20N2FC
5	4856212000	SCREW CRT FIX	4	SWRM+SK-5(L=30)
4				
3	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
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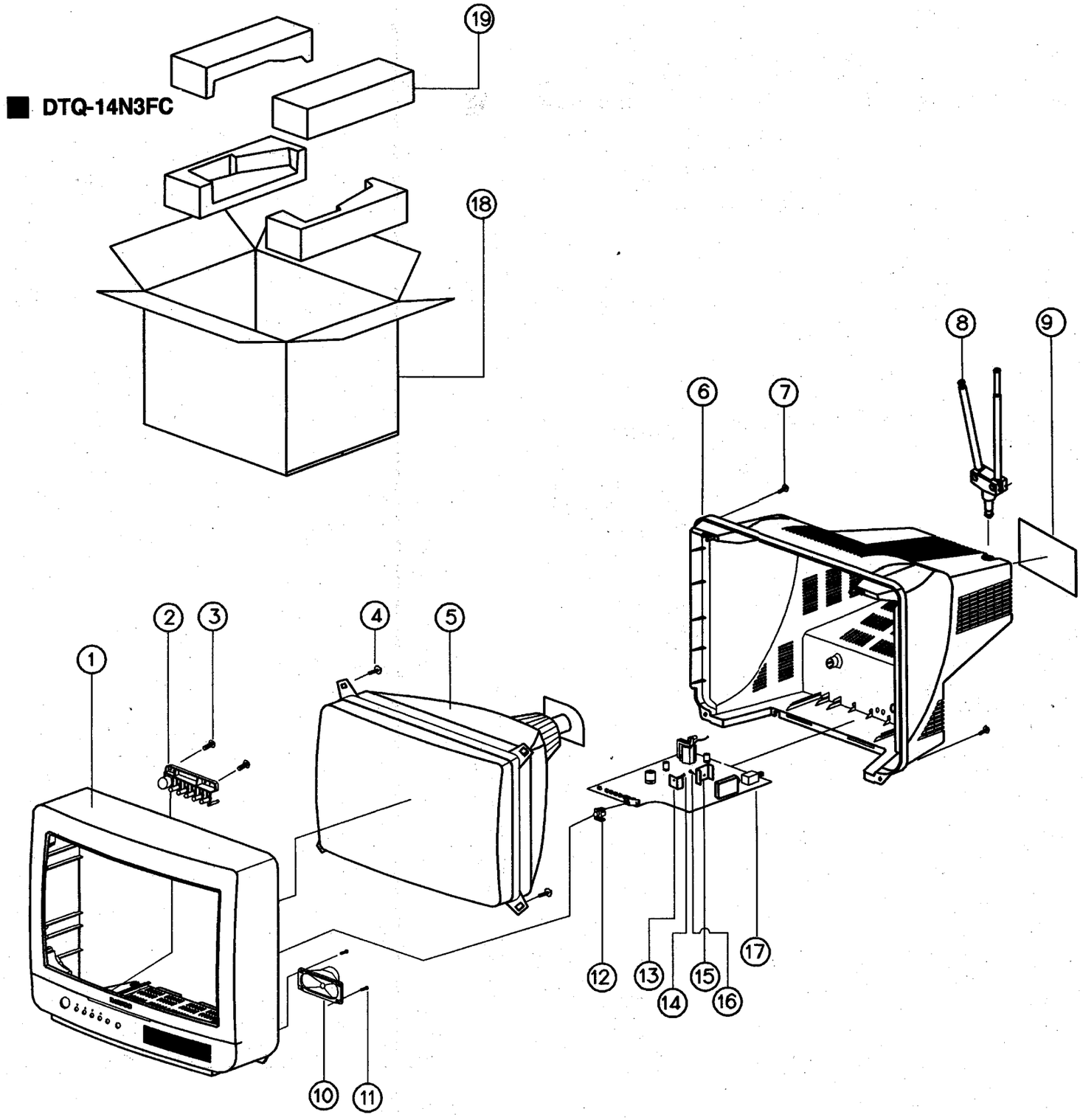
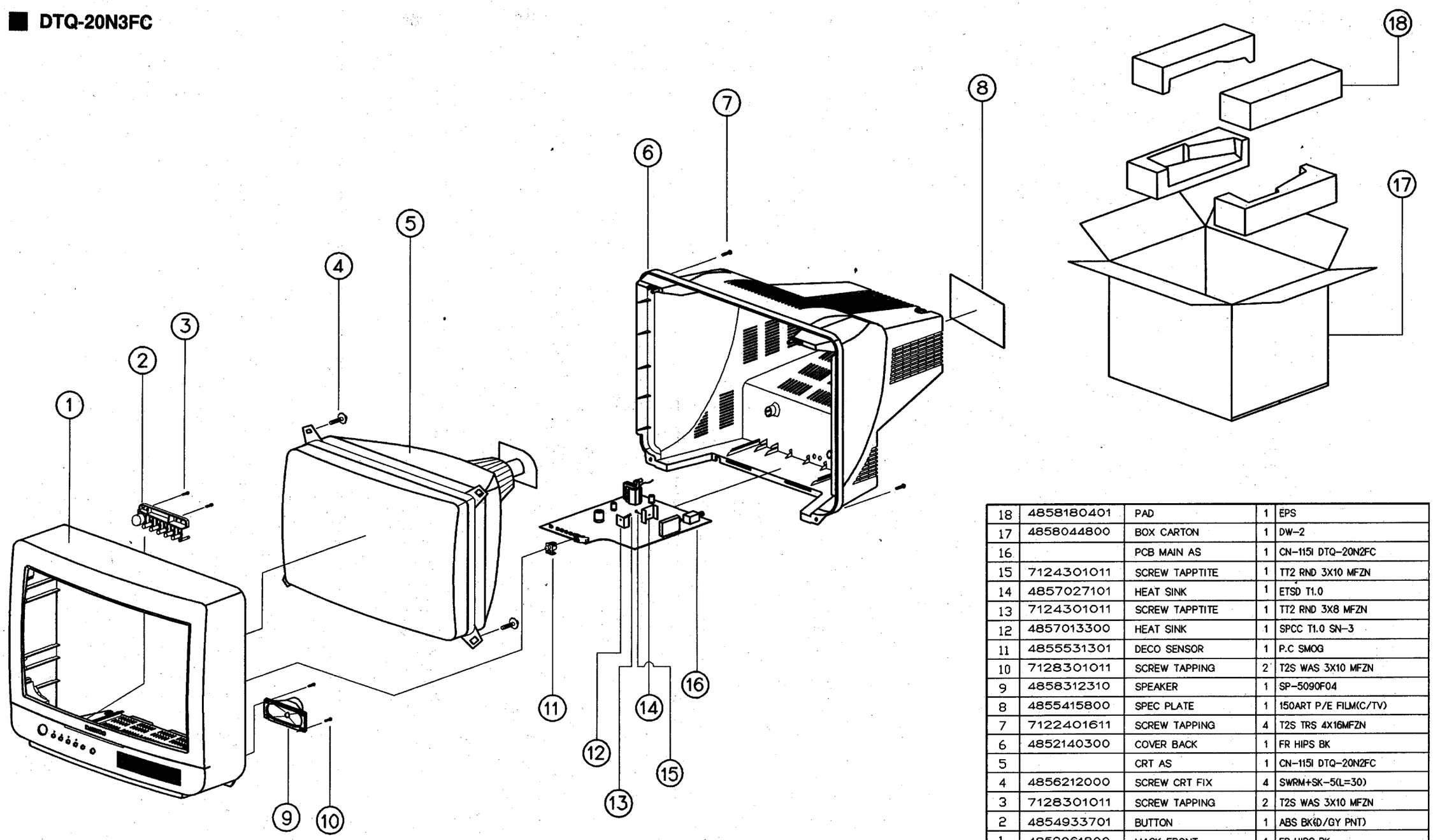
■ **DTQ-14N3FC**



19	4858180301	PAD	1	EPS
18	4858044900	BOX CARTON	1	DW-3
17		PCB MAIN AS	1	CN-115I DTQ-14N2FC
16	7124301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN
15	4857027101	HEAT SINK	1	ETSD T1.0
14	7124301011	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN
13	4857013300	HEAT SINK	1	SPCC T1.0 SN-3
12	4855531301	DECO SENSOR	1	P.C SMOG
11	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
10	4858312310	SPEAKER	1	SP-5090F04
9	4855415800	SPEC PLATE	1	150ART P/E FILM(C/TV)
8		ROD ANT	1	
7	7122401611	SCREW TAPPING	4	T2S TRS 4X16MFZN
6	4852144400	COVER BACK	1	FR HIPS BK
5		CRT AS	1	CN-115I DTQ-20N2FC
4	4856212000	SCREW CRT FIX	4	SWRM+SK-5(L=30)
3	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
2	4854933701	BUTTON	1	ABS BK(D/GY PNT)
1	4852061900	MASK FRONT	1	FR HIPS BK

■ **DTQ-20N3FC**



18	4858180401	PAD	1	EPS
17	4858044800	BOX CARTON	1	DW-2
16		PCB MAIN AS	1	CN-115I DTQ-20N2FC
15	7124301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN
14	4857027101	HEAT SINK	1	ETSD T1.0
13	7124301011	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN
12	4857013300	HEAT SINK	1	SPCC T1.0 SN-3
11	4855531301	DECO SENSOR	1	P.C SMOG
10	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
9	4858312310	SPEAKER	1	SP-5090F04
8	4855415800	SPEC PLATE	1	150ART P/E FILM(C/TV)
7	7122401611	SCREW TAPPING	4	T2S TRS 4X16MFZN
6	4852140300	COVER BACK	1	FR HIPS BK
5		CRT AS	1	CN-115I DTQ-20N2FC
4	4856212000	SCREW CRT FIX	4	SWRM+SK-5(L=30)
3	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN
2	4854933701	BUTTON	1	ABS BK(D/GY PNT)
1	4852061800	MASK FRONT	1	FR HIPS BK

SCHEMATIC DIAGRAM
CN-115I(NICE PROJECT)

North America(AC 120V Only,W/O ,AV)
:DTQ-14N2FC/20N2FC
:DTQ-14J2FC/20J2FC
:DTQ-14N3FC/20N3FC
:U.S.A / CANADA

Middle America(AC 85V ~ 150V,WITH AV)
:DTQ-14N2FS/20N2FS
:DTQ-14J2FS/20J2FS
:DTQ-14N3FS/20N3FS
:MEXICO/PANAMA etc.

Middle America(AC 220V ONLY,WITH AV)
:DTQ-14N2FSP/20N2FSP
:DTQ-14J2FSP/20J2FSP
:DTQ-14N3FSP/20N3FSP
:CHILE/PERU

1. CAUTION

⚠ SYMBOL MARKED PARTS IN THE SCHEMATIC DIAGRAM DESIGNATE THE COMPONENTS WHICH HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY AND SHOULD BE REPLACED ONLY WITH TYPES INDENTICAL TO THOSE IN ORIGINAL CIRCUIT OR SPECIFIED IN THE PARTS LIST. DO NOT DEGRADE THE SAFETY OF THE RECEIVER THROUGH IMPROPER SERVICING.

WARING :

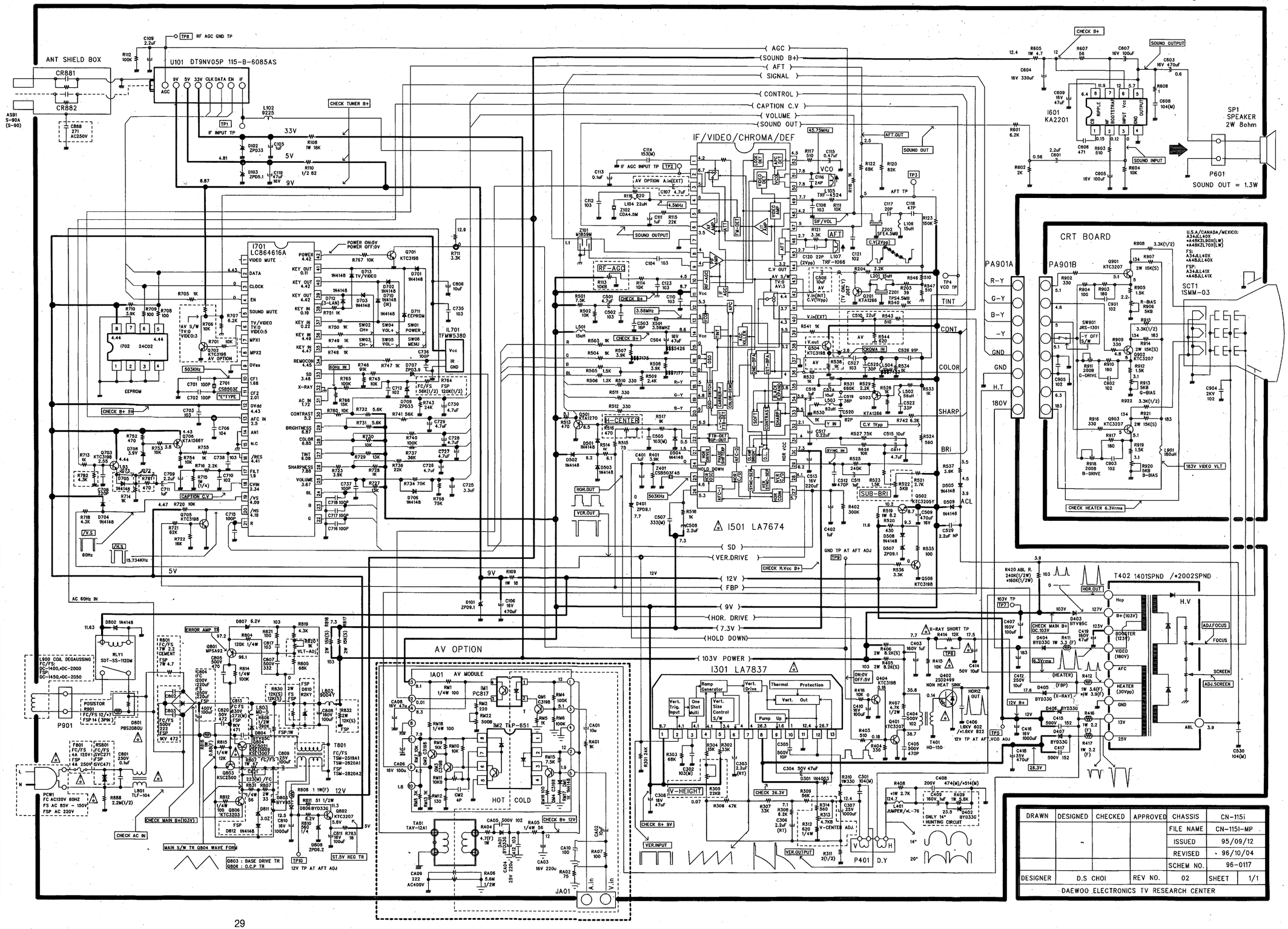
BEFORE SERVICING THIS CHASSIS,READ THE "X-RAY RADIATION PRECAUTION " "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" IN THE SERVICE MANUAL.

CAUTION TO THE SERVICE TECHNICIANS :

BEFORE RETURNING THE RECEIVER TO THE CUSTOMER APROPRIATE LEAKAGE CURRENT OR RESISTANCE MEASUREMENT SHOULD BE CONDUCTED TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.

NOTE :

1. RESISTANCE IS SHOWN IN OHMS. K=1,000 M=1,000,000
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN I ARE EXPRESSED IN uF AND THE VALUES MORE THAN I IN pF.
3. VOLTAGES READ WITH "V.T.V.M" FROM POINT INDICATE TO CHASSIS GROUND USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL LINE VOLTAGE 120 VOLTS AC. VOLTAGE READINGS SHOWN ARE NORMAL VALUES AND MAY VARY +20% EXCEPT H.V.
4. IN CASE OF 19" RECEIVER THE COMPONENT WITH THE MARK + SHOULD BE USED ONLY.
5. THE CIRCUIT DIAGRAM IS A STANDARD ONE. CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.



DRAWN	DESIGNED	CHECKED	APPROVED	CHASSIS	CN-115i
				FILE NAME	CN-115i-MP
				ISSUED	95/09/12
				REVISED	96/10/04
				SCHEM NO.	96-0117
DESIGNER	D.S CHOI	REV NO.	02	SHEET	1/1
DAEWOO ELECTRONICS TV RESEARCH CENTER					

✔ **Caution**: In this Service Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service information Center(http://svc.dwe.co.kr)

PARTS LIST

(DTQ-14N2FC)

Loc	Item Code	Item Name	Description
10000	48B3225B03	TRANSMITTER REMOCON	R-25B03
11000	PSACPW0002	ACCESSORY ASSY	DTQ-14N2FC
00010	4858213800	BAG POLY ACC. BAG	PE FILM T0.06×250×350
00020	486A716200	BATTERY	AAA1.5V
00030	4850A02510	ANT ROD	S3BW216B (L=600 MM)
00040	4850A00250	TRANS ANT MATCHING	IMT-06
10000	48586T2517	MANUAL INSTRUCTION	DTQ-14N2FC/20N2FC DW USA.
12000	PSBCSH0002	COVER BACK AS	DTQ-14N2FC
M211	4852144400	COVER BACK	FR HIPS DTQ-14N2FC
M541	4855417857	SPEC PLATE 14N2FC	150ART P/E DTQ-14N2FC DWO
M542	48558T0111	LABEL SERIAL	PAPER 68×28.5 MODEL S/N ALL/M
13000	PSPKCP0002	PACKING ASSY	DTQ-14N2FC
M601	4858210601	BAG P.E	P.E FILM T0 05×900×900
M641	6520010100	STAPLE PIN	18M/M JDO
M801	48580449T0	BOX CARTON	SW-3 DTQ-142FC
M8011	48558T0711	LABEL SERIAL BOX	PAPER 48×13×4 S/N ALL/M
M811	4858176700	PAD	EPS DTQ-14N2FC
M822	4858261100	PE FILM	T0.02×1100×1000 C/TY 16″
13100	58G0000078	COIL DEGAUSSING	DC-1400
13200	48519A4710	CRT GROUND AS	1401S-1015-1P
14000	PSCACA0002	CABINET ASSY	DTQ-14N2FC
20000	PSFMSJ0002	MASK FRONT AS	DTQ-14N2FC
M201	4852057800	MASK FRONT	FR HIPS BK
M2011	48558T0660	LABLE CRT+CAUTION	PAPER YW 73×33 14″
20300	PSSPPW0002	SPEAKER AS	DTQ-14N2FC
PA601	4850703S11	CONN AS	YH025-03+YST025+USW=200
SP01	4858312310	SPEAKER	SP-5090F04
29000	PSMPMS0002	SPEAKER AS	DTQ-14N2FC
10	2193102005	SOLDER BAR	SN:PB=63:47 S63S-1320
20	2193011101	SOLDER BAR WIRE	SN 63% . 125
30	2291050615	FLUX SOLDER	ORGANIC MIX ROSIN
40	2291050301	FLUX SOLVENT	THINNER/ADITIVE
60	2224050026	BOND SILICON	RTV 122 CARTRIDGE
90	2291051001	FLUX KILLER	KFT-7
20000	PSMPJR0002	PCB MAIN RADIAL AS	DTQ-14N2FC
20000	PSMPJA0002	PCB MAIN AXIAL AS	DTQ-14N2FC
A001	4859811692	PCB MAIN	T1.6×246×246
C104	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C108	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C110	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C112	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C116	CZSL1H240J	C CERA	50V SL 24PF J (AXIAL)
C117	CZCH1H200J	C CERA	50V CH 20PF J (AXIAL)
C118	CZSL1H470J	C CERA	50V SL 47PF J (AXIAL)
C120	CZCH1H220J	C CERA	50V CH 22PF J (AXIAL)
C121	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C123	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C502	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C503	CZCH1H160J	C CERA	50V CH 16PF J (AXIAL)
C512	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
C519	CZSL1H360J	C CERA	50V SL 36PF J (AXIAL)
C520	CCZB1H820K	C CERA	50V B 82PF K (AXIAL)
C522	CZSL1H330J	C CERA	50V SL 33PF J (AXIAL)

PARTS LIST

(DTQ-14N2FC)

Loc	Item Code	Item Name	Description
C525	CZSL1H300J	C CERA	50V SL 30PF J (AXIAL)
C526	CCZB1H910K	C CERA	50V B 91PF K (AXIAL)
C527	CCZF1E103Z	C CERA	25F 0.01MF Z (AXIAL)
C606	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
C701	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C702	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C703	CCZF1E103Z	C CERA	25F 0.01MF Z (AXIAL)
C706	CBZF1H104Z	C CERA SEMI	50F 0.1MF Z (AXIAL)
C708	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)
C710	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C712	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C715	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C716	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C717	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C718	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C735	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C736	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C737	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C738	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C817	CCZF1E103Z	C CERA	25V F 0.01MF Z (AXIAL)
C901	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C902	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C903	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C905	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
D101	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM 9.1V
D102	DUZ33B--	DIODE ZENER	UZ-33B
D103	DUZ5R1BM--	DIODE ZENER	UZ-9.1BM
D301	D1N4003--	DIODE	1N4003 (TAPPING)
D401	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM 9.1V
D402	NBYD33GT--	DIODE	BYD33G-T
D403	DBYV95C--	DIODE	BYV95C (TAPPING)
D404	NBYD33GT--	DIODE	BYD33G-T
D405	NBYD33GT--	DIODE	BYD33G-T
D406	NBYD33GT--	DIODE	BYD33G-T
D407	NBYD33GT--	DIODE	BYD33G-T
D501	D1N4148--	DIODE	1N4148 (TAPPING)
D502	D1N4148--	DIODE	1N4148 (TAPPING)
D503	D1N4148--	DIODE	1N4148 (TAPPING)
D504	D1N4148--	DIODE	1N4148 (TAPPING)
D505	D1N4148--	DIODE	1N4148 (TAPPING)
D507	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM 9.1V
D508	D1N4148--	DIODE	1N4148 (TAPPING)
D509	D1N4148--	DIODE	1N4148 (TAPPING)
D701	D1N4148--	DIODE	1N4148 (TAPPING)
D702	D1N4148--	DIODE	1N4148 (TAPPING)
D703	D1N4148--	DIODE	1N4148 (TAPPING)
D704	D1N4148--	DIODE	1N4148 (TAPPING)
D706	D1N4148--	DIODE	1N4148 (TAPPING)
D707	DUZ3R9B--	DIODE ZENER	UZ-3.9B
D708	DUZ3R9B--	DIODE ZENER	UZ-3.9B
D709	DUZ33B--	DIODE ZENER	UZ-33B
D711	D1N4148--	DIODE	1N4148 (TAPPING)
D802	D1N4148--	DIODE	1N4148 (TAPPING)

PARTS LIST

(DTQ-14N2FC)

Loc	Item Code	Item Name	Description
D804	DBYV95C--	DIODE	BYV95C (TAPPING)
D805	DBYV95C--	DIODE	BYV95C (TAPPING)
D806	NBYD33GT--	DIODE	BYD33G-T
D807	DUZ6R2BM--	DIODE ZENER	UZ-6.2BM 6.2V
D808	DUZ6R2BM--	DIODE ZENER	UZ-6.2BM 6.2V
J001	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J002	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J003	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J004	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J005	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J006	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J008	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J009	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J011	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J012	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J013	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J014	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J015	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J016	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J017	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J018	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J020	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J021	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J023	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J024	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J025	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J026	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J027	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J028	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J029	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J030	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J031	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J032	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J033	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J034	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J035	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J036	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J037	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J038	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J039	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J040	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J041	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J042	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J044	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J045	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J046	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J047	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J048	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J049	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J050	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J052	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J053	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING

PARTS LIST

(DTQ-14N2FC)

Loc	Item Code	Item Name	Description
J054	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J056	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J057	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J058	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J059	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J060	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J061	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J062	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J063	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J066	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J067	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J069	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J070	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J071	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J072	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J073	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J074	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
J075	85801065GY	WIRE COPPER	AWG22 1/0065 TIN COATING
L104	5CPZ220K02	COIL PEAKING	22UH 3.5MM K (LAL02TB)
L106	5CPZ150K02	COIL PEAKING	15UH 3.5MM K (LAL02TB)
L201	5CPZ150K02	COIL PEAKING	15UH 3.5MM K (LAL02TB)
L501	5CPZ150K02	COIL PEAKING	15UH 3.5MM K (LAL02TB)
L502	5CPZ560K02	COIL PEAKING	56UH 3.5MM K (LAL02TB)
L503	5CPZ820K02	COIL PEAKING	82UH 3.5MM K (LAL02TB)
L504	5CPZ100K02	COIL PEAKING	10UH 3.5MM K (LAL02TB)
R110	RD-2Z820J-	R CARBON FILM	1/2 82 OHMJ
R111	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R112	RD-AZ104J-	R CARBON FILM	1/6 100K OHMJ
R114	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R115	RD-AZ223J-	R CARBON FILM	1/6 22K OHMJ
R116	RD-AZ821J-	R CARBON FILM	1/6 820 OHMJ
R117	RD-AZ511J-	R CARBON FILM	1/6 510 OHMJ
R118	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R120	RD-AZ823J-	R CARBON FILM	1/6 82K OHMJ
R121	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHMJ
R122	RD-AZ683J-	R CARBON FILM	1/6 68K OHMJ
R123	RD-AZ154J-	R CARBON FILM	1/6 150K OHMJ
R203	RD-AZ390J-	R CARBON FILM	1/6 39 OHMJ
R204	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHMJ
R301	RD-AZ243J-	R CARBON FILM	1/6 24K OHMJ
R302	RD-AZ333J-	R CARBON FILM	1/6 33K OHMJ
R303	RD-AZ683J-	R CARBON FILM	1/6 68K OHMJ
R304	RD-AZ153J-	R CARBON FILM	1/6 15K OHMJ
R306	RD-AZ473J-	R CARBON FILM	1/6 47K OHMJ
R307	RD-AZ333J-	R CARBON FILM	1/6 33K OHMJ
R308	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHMJ
R309	RD-AZ563J-	R CARBON FILM	1/6 56K OHMJ
R311	RD-2Z209J-	R CARBON FILM	1/2 2 OHMJ
R312	RD-4Z621J-	R CARBON FILM	1/4 620K OHMJ
R314	RD-AZ561J-	R CARBON FILM	1/6 560K OHMJ
R401	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHMJ
R402	RD-AZ304J-	R CARBON FILM	1/6 300K OHMJ
R403	RD-AZ511J-	R CARBON FILM	1/6 510K OHMJ

PARTS LIST

(DTQ-14N2FC)

Loc	Item Code	Item Name	Description
R404	RD-AZ331J-	R CARBON FILM	1/6 330 OHMJ
R407	RD-2Z472J-	R CARBON FILM	1/2 4.7K OHMJ
R414	RD-AZ123J-	R CARBON FILM	1/6 12K OHMJ
R415	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R418	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R420	RD-2Z244J-	R CARBON FILM	1/2 240K OHMJ
R501	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHMJ
R502	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R503	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R504	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R505	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHMJ
R506	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHMJ
R507	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHMJ
R508	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHMJ
R509	RD-AZ242J-	R CARBON FILM	1/6 2.4K OHMJ
R510	RD-AZ331J-	R CARBON FILM	1/6 330 OHMJ
R511	RD-AZ331J-	R CARBON FILM	1/6 330 OHMJ
R512	RD-AZ331J-	R CARBON FILM	1/6 330 OHMJ
R513	RD-AZ471J-	R CARBON FILM	1/6 470 OHMJ
R514	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R515	RD-AZ750J-	R CARBON FILM	1/6 75 OHMJ
R517	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R518	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R520	RD-AZ431J-	R CARBON FILM	1/6 430 OHMJ
R521	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHMJ
R523	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHMJ
R524	RD-AZ561J-	R CARBON FILM	1/6 560K OHMJ
R525	RD-AZ244J-	R CARBON FILM	1/6 240K OHMJ
R526	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R527	RD-AZ753J-	R CARBON FILM	1/6 75K OHMJ
R528	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R529	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHMJ
R530	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R531	RD-AZ684J-	R CARBON FILM	1/6 680K OHMJ
R532	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R533	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R534	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R535	RD-AZ101J-	R CARBON FILM	1/6 100 OHMJ
R536	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHMJ
R537	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHMJ
R540	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R541	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R546	RD-AZ511J-	R CARBON FILM	1/6 510 OHMJ
R547	RD-AZ511J-	R CARBON FILM	1/6 510 OHMJ
R601	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHMJ
R602	RD-AZ202J-	R CARBON FILM	1/6 2K OHMJ
R603	RD-AZ511J-	R CARBON FILM	1/6 510 OHMJ
R604	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R607	RD-AZ560J-	R CARBON FILM	1/6 56 OHMJ
R608	RD-AZ109J-	R CARBON FILM	1/6 1 OHMJ
R705	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R707	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHMJ
R708	RD-AZ101J-	R CARBON FILM	1/6 100 OHMJ

PARTS LIST

(DTQ-14N2FC)

Loc	Item Code	Item Name	Description
R709	RD-AZ101J-	R CARBON FILM	1/6 100 OHMJ
R710	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHMJ
R711	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHMJ
R713	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R714	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R715	RD-AZ105J-	R CARBON FILM	1/4 1M OHMJ
R716	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHMJ
R718	RD-AZ432J-	R CARBON FILM	1/6 4.3K OHMJ
R720	RD-AZ103J-	R CARBON FILM	1/6 62K OHMJ
R721	RD-AZ623J-	R CARBON FILM	1/6 16K OHMJ
R722	RD-AZ163J-	R CARBON FILM	1/6 3.9K OHMJ
R723	RD-AZ392J-	R CARBON FILM	1/6 13K OHMJ
R727	RD-AZ133J-	R CARBON FILM	1/6 1K OHMJ
R728	RD-AZ102J-	R CARBON FILM	1/6 13K OHMJ
R729	RD-AZ133J-	R CARBON FILM	1/6 10K OHMJ
R730	RD-AZ103J-	R CARBON FILM	1/6 5.6K OHMJ
R731	RD-AZ562J-	R CARBON FILM	1/6 5.6K OHMJ
R732	RD-AZ562J-	R CARBON FILM	1/6 75K OHMJ
R734	RD-AZ753J-	R CARBON FILM	1/6 22K OHMJ
R736	RD-AZ223J-	R CARBON FILM	1/6 36K OHMJ
R737	RD-AZ363J-	R CARBON FILM	1/6 100K OHMJ
R740	RD-AZ104J-	R CARBON FILM	1/6 56K OHMJ
R741	RD-AZ563J-	R CARBON FILM	1/6 6.2K OHMJ
R742	RD-AZ622J-	R CARBON FILM	1/6 24K OHMJ
R743	RD-AZ243J-	R CARBON FILM	1/6 10K OHMJ
R745	RD-AZ103J-	R CARBON FILM	1/6 91K OHMJ
R746	RD-AZ913J-	R CARBON FILM	1/6 1K OHMJ
R747	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R748	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R749	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R750	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R751	RD-AZ102J-	R CARBON FILM	1/6 470 OHMJ
R752	RD-AZ471J-	R CARBON FILM	1/6 1K OHMJ
R753	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R754	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R755	RD-AZ102J-	R CARBON FILM	1/6 1K OHMJ
R758	RD-AZ753J-	R CARBON FILM	1/6 75K OHMJ
R764	RD-2Z563J-	R CARBON FILM	1/2 56K OHMJ
R765	RD-AZ104J-	R CARBON FILM	1/6 100K OHMJ
R766	RD-AZ153J-	R CARBON FILM	1/6 15K OHMJ
R767	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R780	RD-AZ103J-	R CARBON FILM	1/6 10K OHMJ
R783	RD-AZ180J-	R CARBON FILM	1/6 18 OHMJ
R804	RD-4Z124J-	R CARBON FILM	1/4 120K OHMJ
R805	RD-AZ683J-	R CARBON FILM	1/6 68K OHMJ
R806	RD-2Z394J-	R CARBON FILM	1/2 390K OHMJ
R810	RD-4Z561J-	R CARBON FILM	1/4 560 OHMJ
R811	RD-2Z510J-	R CARBON FILM	1/2 W 51 OHMJ
R812	RD-4Z101J-	R CARBON FILM	1/4 100 OHMJ
R814	RD-4Z104J-	R CARBON FILM	1/4 100 OHMJ
R815	RD-4Z123J-	R CARBON FILM	1/4 12K OHMJ
R819	RD-AZ432J-	R CARBON FILM	1/6 4.3K OHMJ
R821	RD-AZ101J-	R CARBON FILM	1/6 100K OHMJ
R888	RD-2Z225J-	R CARBON FILM	1/2 2.2M OHMJ

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Loc	Item Code	Item Name	Description
R902	RD-AZ331J-	R CARBON FILM	1/6 330 OHMJ
R903	RD-AZ181J-	R CARBON FILM	1/6 180 OHMJ
R904	RD-AZ101J-	R CARBON FILM	1/6 100 OHMJ
R905	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHMJ
R908	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHMJ
R909	RD-AZ331J-	R CARBON FILM	1/2 330 OHMJ
R910	RD-AZ181J-	R CARBON FILM	1/6 180 OHMJ
R912	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHMJ
R915	RD-AZ332J-	R CARBON FILM	1/2 3.3K OHMJ
R916	RD-AZ331J-	R CARBON FILM	1/6 330K OHMJ
R917	RD-AZ181J-	R CARBON FILM	1/6 180K OHMJ
R919	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHMJ
R922	RD-AZ332J-	R CARBON FILM	1/2 3.3K OHMJ
C105	CEXF1H109V	C ELECTRO	50V RSS IMF (5×11) TP
C109	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5×11) TP
C111	CEXF1H109V	C ELECTRO	50V RSS IMF (5×11) TP
C113	CEXF1H108V	C ELECTRO	50V RSS 0.IMF (5×11) TP
C114	CMXM2A153J	C MYLAR	100V 0.015MF J TP
C115	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5×11) TP
C119	CEXF1E470V	C ELECTRO	25V RSS 47MF (5×11) TP
C301	CMXM2A104J	C MYLAR	100V 0.1MF J TP
C302	CMXM2A103J	C MYLAR	100V 0.01MF J TP
C303	CEXD1H229Q	C ELECTRO	50V RT 2.2MF (6.3×11) TP
C304	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3×11) TP
C305	CXSL2H100D	C CERA	500V SL 10PF D (TAPPING)
C306	CEXD1H229Q	C ELECTRO	50V RT 2.2MF (6.3×11) TP
C308	CEXF1E470V	C ELECTRO	25V RSS 47MF (5×11) TP
C401	CEXF1H109V	C ELECTRO	50V RSS IMF (5×11) TP
C402	CEXF1H109V	C ELECTRO	50V RSS IMF (5×11) TP
C403	CEXF2C109V	C ELECTRO	160V RSS IMF (8×11.5) TP
C404	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)
C405	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)
C409	CEXF2C109V	C ELECTRO	160V RSS IMF (8×11.5) TP
C410	CEXF1E101V	C ELECTRO	25V RSS I00MF (6.3×11) TP
C414	CEXF1H100V	C ELECTRO	50V RSS I0MF (5×11) TP
C415	CCXB2H152K	C CERA	500V B 1500PF K (TAPPING)
C417	CCXB2H152K	C CERA	500V B 1500PF K (TAPPING)
C501	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5×11) TP
C504	CEXF1E470V	C ELECTRO	25V RSS 47MF (5×11) TP
C505	CMXM2A103J	C MYLAR	100V 0.01MF J TP
C507	CMXM2A333J	C MYLAR	100V 0.033MF J TP
C508	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5×11) TP
C511	CEXF1H109V	C ELECTRO	50V RSS IMF (5×11) TP
C513	CEXF1E221V	C ELECTRO	25V RSS 220MF (8×11.5) TP
C514	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5×11) TP
C515	CEXF1H100V	C ELECTRO	50V RSS I0MF (5×11) TP
C517	CEXF1H228V	C ELECTRO	50V RSS 0.22MF (5×11) TP
C518	CEXF1H109V	C ELECTRO	50V RSS IMF (5×11) TP
C524	CEXF1H100V	C ELECTRO	50V RSS I0MF (5×11) TP
C529	CEXD1H229V	C ELECTRO	50V RND 2.2MF (5×11) TP
C530	CMXM2A104J	C MYLAR	100V 0.1MF J TP
C601	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5×11) TP
C604	CEXF1C331V	C ELECTRO	16V RSS 330MF (8×11.5) TP

PARTS LIST

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Loc	Item Code	Item Name	Description
C605	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3×11) TP
C607	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3×11) TP
C608	CMXM2A104J	C MYLAR	100V 0.1MF J TP
C609	CEXF1E470V	C ELECTRO	25V RSS 47MF (5×11) TP
C709	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5×11) TP
C711	CEXF1H109V	C ELECTRO	50V RSS 1MF (5×11) TP
C725	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5×11) TP
C726	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5×11) TP
C727	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5×11) TP
C728	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5×11) TP
C729	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5×11) TP
C730	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5×11) TP
C802	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)
C803	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)
C805	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)
C806	CEXF1H100V	C ELECTRO	50V RS 10MF (5×11) TP
C807	CCXB2H332K	C CERA	500V B 3300PF K (TAPPING)
C809	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3×11) TP
C811	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3×11) TP
C820	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
C821	CMXB1H223J	C MYLAR	50V EU 0.022MF J
F801A	4857415001	CLIP FUSE	PFC5000-0702
F801B	4857415001	CLIP FUSE	PFC5000-0702
L901	5CPX181J--	COIL PEAKING	180UH J RADIAL
Q201	TKTA1266Y-	TR	KTA1266Y
Q401	TKTC3207--	TR	KTC3207
Q404	TKTC3198Y-	TR	KTC3198Y
Q501	TKTA1270Y-	TR	KTA1270Y
Q502	TKTC3205Y-	TR	KTC3205Y
Q503	TKTA1266Y-	TR	KTA1266Y
Q506	TKTC3198Y-	TR	KTC3198Y
Q701	TKTC3198Y-	TR	KTC3198Y
Q703	TKTC3198Y-	TR	KTC3198Y
Q705	TKTC3198Y-	TR	KTC3198Y
Q706	TKTA1266Y-	TR	KTA1266Y
Q802	TKTC3207--	TR	KTC3207
Q806	TKTC3203Y-	TR	KTC3203-Y
Q901	TKTC3207--	TR	KTC3207
Q902	TKTC3207--	TR	KTC3207
Q903	TKTC3207--	TR	KTC3207
R113	RV5426103P	R SEMI FIXED	RH0638C 10K OHM B
R305	RV5426223P	R SEMI FIXED	RH0638C 22K OHM
R313	RV5426472P	R SEMI FIXED	RH0638C 4.7K OHM B
R516	RV5426471P	R SEMI FIXED	DVN-DJA-A03 470 OHM B
R522	RV5426472P	R SEMI FIXED	RH0638C 4.7K OHM B
R820	RV5426102P	R SEMI FIXED	EVN-DJA-A03 1K OHN B
R906	RV4121502P	R SEMI FIXED	NVZ6THT 5K OHM
R911	RV4121201P	R SEMI FIXED	NVZ6THT 200K OHM
R913	RV4121502P	R SEMI FIXED	NVZ6THT 5K OHM
R918	RV4121201P	R SEMI FIXED	NVZ6THT 200K OHM
R920	RV4121502P	R SEMI FIXED	NVZ6THT 5K OHM
SW01	5S50101090	SW TACT	SKHV17910A
SW02	5S50101090	SW TACT	SKHV17910A

PARTS LIST

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Loc	Item Code	Item Name	Description
SW03	5S50101090	SW TACT	SKHV17910A
SW04	5S50101090	SW TACT	SKHV17910A
SW05	5S50101090	SW TACT	SKHV17910A
SW06	5S50101090	SW TACT	SKHV17910A
X501	5XEX3R579C	CRYSTAL QUARTZ	HC-49U 3.579545M 20PPM TA
ASB1	4850A18340	ANT SHIELD BOX	S-90-A=100
C106	CEYF1C471V	C ELECTRO	16V RSS 470MF (10×12.5)
C307	CEYF1E102V	C ELECTRO	25V RSS 1000MF (13×20)
C406	CMYH3C602J	C MYLAR	1.6KV 6000PF J (BUP)
C407	CEYF2C101V	C ELECTRO	160V RSS 100MF (16×25)
C408	CMYE2D474J	C MYLAR	200V 0.47MF J (PL)
C412	CEYF2E100V	C ELECTRO	250V RSS 10MF (10×20)
C416	CEYF1C102V	C ELECTRO	16V RSS 1000MF (10×20)
C418	CEYF1V471V	C ELECTRO	35V RSS 470MF (10×20)
C419	CEYF2C470V	C ELECTRO	RSS 160V 47MF 13×25
C509	CEYF1C471V	C ELECTRO	16V RSS 470MF (10×12.5)
C603	CEYF1C471V	C ELECTRO	16V RSS 470MF (10×12.5)
C801	CLYL2B104K	C LINE ACROSS	125/250V 0.1MF K (UL/CSA)
C804	CEYN2G221T	C ELECTRO	200V 220MF PANASONIC(30×25)
C808	CEYF2C101V	C ELECTRO	160V RSS 100MF (16×25)
C810	CEYF1C102V	C ELECTRO	16V RSS 1000MF (1×20)
C813	CMYE2J272J	C MYLAR	630V PL 2700PF J
C904	CCYB3D102K	C CERA	SKV B 1000PF K
D801	DPBS208GU-	DIODE BRIDGE	PBS208GU-CA
F801	5F1GB4021M	FUSE GLASS TUBE	UL/CSA MF51 4A 125V NM
I301	1LA7837--	IC	LA7837
I301A	4857027101	HEAT SINK	ETSD T1.0
I301B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN
I501	1LA7674--	IC CHROMA	LA7674
I601	1KA2201N--	IC AMP	KA2201N
I701	1LC8645B75-	IC MICOM	LC864616A-6B75
I702	124LC02B--	IC	IC MEMORY 24LC02B
IL701	1TFMW5380-	IC PREAMP	TFMW5380
L102	58C5580019	COIL CHOKE	TRF-9225 (0.55UH)
L105	58B0000081	COIL PIF	TRF-4524
L107	58B49R3041	COIL PIF	TRF-1066 (49.3MHZ 3%)
L801	5PTLM104--	FILTER LINE	TLF-104
L802	58C9430599	COIL CHOKE	AZ-9004Y(94MH)
L803	5MC0000100	COIL BEAD	MD-5 (HC-3550)
P401	4859240020--	CONN WAFER	YFW500-05
P601	4859231620	CONN WAFER	YW025-03
P901	4859242220	CONN WAFER	YFW800-02
PA901	4850708N08	CONN AS	BIC-08T-25T+C-20T+ULW=400
PCW1	4859903610	CORD POWER AS	KJ-10W+BSP3-1/2H=2100
A0000	4859900321	CORD POWER	KKP-8W SPT-2#18AWG(ST)
Q402	T2SD2499--	TR	2SD2499
Q801	TMPSA92--	TR	MPSA92
Q803	TKSC2500B-	TR	KSC2500B
Q804	TKSC5021FR	TR	KSC5021F-R
Q804A	4857013300	HEAT SINK C	SPCC T1.0 SN-3
Q804E	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN
R108	RS01Y183J-	R M-OXIDE FILM	1W 18K OHM J
R109	RS01Y180J-	R M-OXIDE FILM	1W 18 OHM J

PARTS LIST

(DTQ-14N2FC)

Loc	Item Code	Item Name	Description
R310	RS01Y331J-	R M-OXIDE FILM	1W 330 OHM J
R405	RS02Y822JS	R M-OXIDE FILM	2W 8.2K OHM J SMALL
R406	RS02Y822JS	R M-OXIDE FILM	2W 8.2K OHM J SMALL
R409	RS01Y562J-	R M-OXIDE FILM	1W 5.6K OHM J
R411	RF01Y339J-	R FUSIBLE	1W 3.3 OHM J
R412	RF01Y369J-	R FUSIBLE	1W 3.6 OHM J
R416	RF01Y229J-	R FUSIBLE	1W 2.2 OHM J
R417	RF01Y229J-	R FUSIBLE	1W 2.2 OHM J
R519	RS01Y829J-	R M-OXIDE FILM	1W 8.2 OHM J
R605	RS01Y479J-	R M-OXIDE FILM	1W 4.7 OHM J
R801	RX07B229JN	R CEMENT	1W 2.2 OHM J
R807	RS01Y470J-	R M-OXIDE FILM	1W 47 OHM J
R808	RF01Y109J-	R FUSIBLE	1W 1 OHM J
R816	RS02Y153JS	R M-OXIDE FILM	2W 15K OHM J SMALL
R817	RS02Y153JS	R M-OXIDE FILM	2W 15K OHM J SMALL
R818	RF01Y688J-	R FUSIBLE	1W 0.68 OHM J
R901	DBF120M140	POSISTOR	901P52E120NP13
R907	RS02Y153JS	R M-OXIDE FILM	2W 15K OHM J SMALL
R914	RS02Y153JS	R M-OXIDE FILM	2W 15K OHM J SMALL
R921	RS02Y153JS	R M-OXIDE FILM	2W 15K OHM J SMALL
RLY1	5SC0101328	SW RELAY	SDT-SS-112DM
RS801	DSVC271D14	VARISTOR	SVC271D14A
SCT1	4859302430	SOCKET CRT	1SMM03
SW90	5S40403035	SW LEVER	JRS-1301
T401	50D0000022	TRANS DRIVE	HD-15D
T402	50H0000176	FBT	1401SPND
T801	50M2519A1-	TRANS SMPS	TSM-2519A1
U101	4859714630	TUNER VARACTOR	115-B-6085AS
Z101	5PM1859M--	FILTER SAW	M1859M
Z102	5PCDA45E42	FILTER CERA	CDA4.5ME42
Z201	5PTPS45MB-	FILTER CERA	TPS-4.5MB(TRAP)
Z202	5PSFE45MB-	FILTER CERA	SFE 4.5MB
Z401	4850L02410	RESONATOR CERA	CSB503F45 (15.760KHZ)
Z701	4850L03410	RESONATOR CERA	CSB503E
M211A	7122401611	SCREW TAPPING	T2S TRS 4×16 MFZN
M491	4854930401	BUTTON	ABS BK
M491A	7122401611	SCREW TAPPING	T2S WAS 3×12 MFZN
M551	4854930401	DECO SENSOR	PMMA CL
M551A	7128301211	SCREW TAPPING	T2S WAS 3×12 MFZN
M681	4856812001	TIE CABLE	NYLON66 DA100
M682	2TT24030BK	TAPE GLASS	T0.24X30BK
SP01A	7128301211	SCREW TAPPING	T2S WAS 3Z12 MFZN
V901	PSRTPW0002	CRT AS	DTQ-14N2FC
00010	58D1000046	COIL DY	ODY-M1401
00020	2233030001	PAINT LOCK	3B-1401B
00030	2TG00025-	TAPE GLASS	W25
00040	2224050033	BOND SILICON	RTV 252
00050	4850PM001-	MAGNET CP	NY-225 (MINI NECK)
00060	48A96R004-	RUBBER WEDGE	HMR 28 SR (10×54)
V901A	48A96414N1	CRT BARE	A34JLL40X
V901B	4856212000	SCREW CRT FIX	SWRM+SK-5 (L=30)

OPTION LIST

CN-115I MODEL LINE-UP

AREA	NORTH AMERICA	MIDDLE AMERICA	MIDDLE AMERICA
MODEL	DTQ-14N2/20N2FC DTQ-14J2/20J2FC DTQ-14N3/20N3FC	DTQ-14N2/20N2FS DTQ-14J2/20J2FS DTQ-14N3/20N3FS	DTQ-14N2/20N2FSP DTQ-14J2/20J2FSP DTQ-14N3/20N3FSP
AC INPUT	AC 120V ONLY	AC 85-150V	AC 220V ONLY
COUNTRY	U.S.A, CANADA	MEXICO, PANAMA, etc.	CHILE, PERU
AV OPTION	W/O AV	WITH AV	WITH AV
ANTENNA	14": WITH, 20": W/O	14"/ 20": WITH	14"/ 20": WITH
POWER	BASIC	ADD SOME CIRCUITS	ADD SOME CIRCUITS

CN-115I POWER OPTION

LOC	FC (AC 120V)	FS (AC 85-150V)	FSP (AC 220V)
PCW1	4859903610(POLARITY)	4859902710(NON POLARITY)	4859900910(220V TYPE)
F801	125V 4A	125V 4A	250V 4A
RS801	SVC271	SVC271	SVC471
R901	2PIN (12/7 OHM)	2PIN (12/7 OHM)	3PIN (14 OHM)
R801	7W 2.2	7W 2.2	7W 4.7
C802/3	500V 222	500V 222	1KV 472
C804	200V 220uF	250V 220 uF	400V 100uF
R830	*	2W 12K(S)	2W 12K(S)
D810	*	*	R2KY
R831	*	*	1/4W 56
R832	*	*	2W 12K(S)
R807	1W 47	1W 47	2W 33
C813	630V 272(M)	630V 272(M)	1KV 471 BN TYPE
D811	*	*	3.0Vz
D812	*	*	1N4148
R764	56K(1/2)	56K(1/2)	120K(1/2)
J074	INSERT	INSERT	*
J075	INSERT	*	*
J076	*	*	INSER

T801	TSM-2519A1	TSM-2820A1	TSM-2820A2
Q804	KSC5021	KSE13009	KSE13009
Q804A	4857013300	*	*
C821	223(M)	*	*
R806	390K(1/2)	390K(1/2)	390K(1W)
CRT	A34JLL40X A48KZL90X(LW) A48KZL70X(LW)	A34JLL40X A48JLL40X A48KZL90X(LW):MEXICO A48KZL70X(LW):MEXICO	A34JLL41X A48JLL41X
D.COIL	DC-1400, DC-2000	DC-1400, DC-2000	DC-1450, DC-2050

* NEXT TIME (C. K. D 96. 10 LOT) FC WILL BE RUNNING CHANGED TO FS (except. POWER CORD)

CN-115I AV OPTION

R701 : ADD 10K
R706 : ADD 10K
RA01 : ADD 1K
RA02 : ADD 75
RA04 : ADD 1W 4.7(F)
RA05 : ADD 56(1/4)
RA06 : ADD 5.6M(1/2)
RA07 : ADD 100
R538 : ADD 1K
R543 : ADD 510
R544 : ADD 620
TA01 : ADD TAV-12A1
J068.J007.J022.J043.J051.J055.J064. : ADD
J067 : DELETE
JA01 : ADD JACK PHONO
IA01 : ADD IC AV
Q504 : ADD 3198
Q702 : ADD 3198

C107 : ADD 50V 4.7u
C506 : ADD 50V 10u
C510 : ADD 50V 22u
CA01 : ADD 50V 10u
CA02 : ADD 50V 10u
CA03 : ADD 25V 220u
CA04 : ADD 25V 220u
CA05 : ADD 500V 102
CA06 : ADD 25V 100u
CA08 : ADD 25V 47u
CA09 : ADD AC400V 222
CA10 : ADD 50V 100p
CA12 : ADD 25V 103
DA01 : ADD BYD33G
D713 : ADD IN4148

CN-115I 14"/20" OPTION(MAIN PCB)

LOC	14″	20″
C406	1.6KV 602	1.6KV 822
C408	200V 474	200V 514
L401	*	L-76
R901	12 OHM	7OHM
R408	*	1W 2.7K
R412	1W 3.6(F)	1W 3.9(F)
R409	1W 5.6K	*
C409	160V 1u	*
J027	INSERT	*
R420	240K(1/2)	160K(1/2)
D402	BYD33G	*

ENGINEER NOTE

DAEWOO

DAEWOO ELECTRONICS CO., LTD.
686, AHYEON-DONG, MAPO-GU,
SEOUL, KOREA.
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